

PERSONAL

In the present hard times, one of the commonest criticisms of schools is that they give inadequate help to sixth-formers who want to enter higher education. I daresay they do; but I would like to put in a word in their defence. In the confusion of higher education, not the Angel Gabriel, and certainly not Sir Keith Joseph in person, could give adequate advice.

It is not simply that institutions change, and schools are liable to be out of date; this has always been true. It is that, at the moment, it is impossible for even the institutions themselves to say with any confidence what will happen to them in the next few years.

Take the universities: it is certainly true that Oxford, for example, has never had a year like the one just past for intervention from without; and compared with other universities, Oxford has maintained a good deal of autonomy.

I am not pleading, or not at this moment, for total academic freedom. I simply remark that these days it is impossible for any university to make rational plans. It is, therefore, very difficult for them to say, for example: "We welcome students to read Rus-

sian"; or "We can offer students the choice of combining this, that and the other course".

They cannot do so because by the time the brochure is published and on display in the schools careers' room, the information may well be misleading. The course may have gone, the teachers of Russian replaced by some "new blood" hired to teach information technology. (One of the odder results of Government intervention at this level is that, in 20 years time, the universities, all of them, will be full of ageing and outdated readers and professors of information technology, introduced to satisfy a government whim, itself even now most probably the outcome of out-of-date concepts. Nothing dates faster than fashion, especially fashion in applied science.)

The universities themselves cannot tell where they are going: whatever happens to a university now, it is unlikely to happen as a result of its own choice.

Things are worse in the other parts of the higher education field. It has always been quite difficult for a school to be completely up-to-date with information about polytechnics and colleges, but now it is totally impossible.



Mary Warnock

When the National Advisory Body was set up, I had some hope that there might come out of it a rational central plan. I hoped that, having looked at the spread of courses over the country as a whole, region by region, the NAB would decide which courses were redundant, which should be supported and strengthened. I even hoped that there might be some fundamental questions raised about

the very existence of the binary system of higher education. Is it in the best interests of the education of this country as a whole? Would not schools be better placed not only to advise pupils, but to collaborate in educational planning if there were a single system? Given the increasing overlap between the work done in universities and polytechnics; given the virtual identity not only between types of courses but between standards within many of those courses; given the still-birth of the Crossland ideal of technical education as a force parallel with and equal to university education... given all this, how can the binary system possibly be justified? Does it continue simply because local authorities want it?

Well, of course, as we know, none of these questions was raised by the NAB. Nor have they made any attempt to reintroduce the Crossland ideal, an ideal which would entail radically reducing, if not eliminating, arts and social science courses, and vastly strengthening science courses everywhere. It has to be said that this is not wholly their fault.

Whatever their shortcomings, they have been working to a perfectly

ludicrous deadline, suggested by the Government and apparently accepted by their chairman.

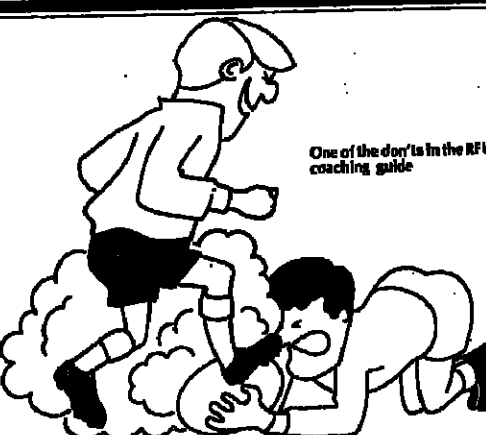
But, whoever is to blame, the present outcome is the worst possible. Individual institutions have put in their plans for meeting the proposed cuts. In some of the larger, better established institutions, arts and social sciences are to be considerably cut. In other, smaller institutions, which may have had very little science in the first place, it is science, not arts, that is being reduced. There is no regional planning of any kind, as far as one can tell from the outside; and, apparently at random, one or two colleges are to be closed altogether.

How can anyone, let alone a career teacher with other things on his mind, be expected to make sense of all this? There is no sense to be made. And the teacher may be told that his school was unhelpful. But you cannot have a pupil about where to apply if you have no way of even guessing, let alone rationally predicting, what institutions or what courses are likely to survive.

It is not just that it is difficult to predict the future; the future itself, someone said, is not what it was.

DIARY

A try followed by a penalty



One of the blessed releases of leaving one's seat, is not having to get dressed up to go to dinners and try to make conversation with perfect strangers. I was at one such gathering in the summer and found myself next to a burly fellow who said he was High Master of St Paul's. He seemed rather

and asked them what they were doing about it. Quite a lot, it seems. They've changed the laws for the under-19s to try to stop scrums collapsing and dangerous tucks developing; they've tried to ban youngsters playing against grown-ups in Old Boy matches; they now encourage as many as six (six!) substitutes in a schoolboy match; and

But I suspect the injuries will continue. Personally, I blame the telly and those slow motion action shots of JPR Williams smashing himself and the opposing wing into the corner flag. Boys will imitate Mr Ron Tomick, of the RU Schools' Union, told me in a letter that "some woman" in ILGA actually wanted to ban rugby in her school. I don't enlighten him as to her sanity. I think I shall oppose Mr Frances Morrell if he attempts a particular excursion into the curriculum.

A little knowledge

Meanwhile political forays into the school curriculum appear to be the fashion. It seems that Mr Bob Meacham, the leader of Solihull Council, has responded to the hiccup in his plans for a new 11-plus by saying that this was only one part of a "major shake-up". He wants, among other things, the banning of lessons about "politics, nuclear disarmament and similar subjects". I don't know how the good teachers of Solihull will react to this, but I suspect Mr Meacham's efforts are doomed to failure.

It is very difficult for leaders of councils to have the slightest effect on what goes on behind classroom doors, and attempts to create a Solihull Index of Forbidden Knowledge will just whet the adolescent appetite for what is that they're not being allowed to know about. Of course, when Mr Meacham says he does not want any politics in Solihull schools, he really means that

he does not want any opinions purveyed that differ from his own. Sir Keith Joseph is saying much the same as he lays down "criteria" for our examination system.

But the real battle, I suspect, is not so much over the open curriculum (over which the teachers still have a reasonable grip) as the hidden one. Mr Meacham wants more uniform garb for Solihull girls, which we were told by Peter Wilby in the *Sunday Times* this week means knee-length socks and flared rather than pleated skirts. 57 years ago, in the year of the General Strike, the council elections in Sheffield were fought with a similar hidden curricular principle at issue - whether children should be allowed to dress up in army uniform and practice militarism.

Labour won, and Sheffield schools have been tainted by marching columns of child soldiers ever since. I wonder if Mr Meacham will be able to equal that record, and keep his Solihull girls in the 19th century.

Getting the right mix

Despite attempts at control by Sir Keith or Sheffield City Council, preferences for subjects in the school curriculum are affected by trends in fashion. This is particularly true in science. Immediately after the Second World War, physics was the great magnet for the high achievers. But now, as the microchip is beginning to give way to the potentially more exciting biochip, the life sciences are becoming far more attractive. It is partly that the advent of mixed schools is beginning to break down the historic sexist divide between physics and biology.

But it is producing a dilemma as to just what combination of sciences the ambitious Isaac Newtons of the future should study at A level. At a recent CRAC (CRAC: the consensus among Britain's eminent biologists) conference, the consensus was that they just wanted folk with a good grounding in science, though, when pressed, to some of them this seemed to mean good A levels in maths, physics, chemistry and biology. "If biology goes on getting more and more attractive, something will have to give. I wish just one brave examining board would invent a really rigorous, general science A level."

When I was teaching at Ecclesfield Grammar School 20 years ago, it was made deliberately impossible to study separate sciences at O level. Everyone did general science, and they were better for it. But since then reaction has set in to the point where Sir Keith has appointed a physics professor to re-arrange the school curriculum and impose separate sciences way down among the 13 and 14-year-olds. The Department of Industry has

identified biotechnology as the one certain growth industry of the future in which we are still scientifically ahead; yet our Secretary of State for Education is at least 20 years out of date in his obsession with the wrong sort of specialization at the wrong time - quite apart from his other obsession that our future scientists should get no whiff at school of the ethics of their trade.

If we are to keep our lead in biotechnology and become the cloners and stitchers of genes to the world, some thought should go into the purposes to which this scientific expertise is put.

Latest viewing figures

At the other end of the achievement spectrum, I'm pleased to see that agency, this month, Numeracy Week has been launched with a new logo and a which admits viewers to a free computerized testing system (MAIL - Micro Aided Learning) the brainchild of the National Extension College in Cambridge.

The whole project has been coaxed to life by one of our most experienced adult educators and Channel 4's Education-in-Chief, Naomi Sargent, once of the Open University and the National Advisory Council for Adult and Continuing Education, which has



Naomi Sargent... project leader

been wondrously killed off by Sir Keith (She used to be a Labour MP, could have been a Lady and a bargain; but she seriously reckoned the GLC takeover battle, losing it to Michael Foot's people). I wish her numeracy campaign much success as the adult literacy which I helped launch nearly 10 years ago. It has at least earned the title of one adult education unit, ALBSU - the Adult Literacy Basic Skills Unit. The campaign, "basic skills" to its title, justifies its place in the teacher training places should go to the teachers.

It is a letter to the Bishop of Salford, chairman of the governors, Sir Keith, that teacher training would be at De La Salle College, Manchester. This comes after an initial decision in November last year but delayed after the governors of De La Salle started their dropped, legal proceedings against the Secretary of State. Teacher training considered surplus to national needs will finish at 10 institutions.

Summarizing the arguments put to Sir Keith "accepts unreservedly that the Catholic colleges have a significant place in the teacher training structure. But I cannot accept a right to any immutable percentage of public sector training."

Mr Richard Cunningham, secretary of the Catholic Education Council, said the tradition had been one of Catholic colleges to train teachers for Catholic schools. "Now he's saying it's entirely at the whim or mercy of the Secretary of State."

Underlying developments in society and education. The "historic share" refers to the proportion of teacher training the churches can claim so as to reflect the proportion of the school population in Church schools. It applies equally to the Church of England.

After the initial proposals last year Catholics found their traditional proportion of 9.95 per cent of places had been reduced to 7.5 per cent, including those withdrawn at Newman College, Birmingham, an RC college later revived.

Sir Keith's cancellation of the historic share was described this week by Brother Wilfrid, principal of De La Salle, as having the most serious implications. "In my reading the Secretary of State retains the freedom to do as he chooses. The partnership of consultation and reaching agreement is over-ridden."

Mr Peter Herbert, national executive member for Inner London of the National Association of Schoolmasters/Union of Women Teachers, said his association was asking for talks with the Inner London Education Authority on the question of security. Bleepers had been suggested because teachers often found themselves a long way from a telephone.

The 1370-pupil school was formed this year from an amalgamation of the mixed Stockwell Manor School, the all-girls Priory Park School, and the all-boys Kennington School.

All the problems have been on the Stockwell Manor site, a modern, open site which has had a long problem with intruders.

This has increased this term with the boys from Kennington School moving over to this site. Staff do not yet know all the pupils in the merged school, and cannot be sure who should be on the premises and who not.

A spokesman for the authority said consultations on school security policy were still going on after changed powers were allocated to the local authorities by the 1980 Local Government Act.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander, a research fellow at Keele University and chairman of the Association for Black Education Advancement, said that black children had high drop-out rates at comprehensives. High academic achievement was rare. By contrast, grammar schools had high expectations of the black pupils they admitted and offered them support and encouragement along the path to exam success, entry to university and careers in the professions.

The conference, organized by the Council of Europe at Keele, was told that a combination of overt and latent racism among college and university tutors was hindering the progress of black students in higher education.

Black children do better at grammar schools than at comprehensives, a leading black academic told a conference on multicultural education this week.

Mr Terry Leander

Kinnock: search for lost votes

With Mr Neil Kinnock as leader and Mr Roy Hattersley as his deputy, the Labour Party has two men at the top who have taken a close interest in education. As shadow education secretary, Mr Kinnock threw himself into the lengthy policy discussions which preceded the last election; party committees beavered away with commendable zeal sketching the outline of a grand, if at times obscure, reform of secondary and continuing education. There is no doubt that Mr Kinnock provided much of the drive for this. What he did not (or could not) do was to keep Labour's collective feet on the ground and instill the element of realism which might, somehow, have suggested that it was something more than a paper exercise.

Mr Hattersley, too, is an ex-front bench education spokesman. He had a short spell facing Mrs Thatcher soon after she became Secretary of State. One of his main achievements then was to make an uncompromising attack on independent education (in an address to the prep schools) which may well have contributed to the brevity of his period of office as shadow education minister. His paper to the British Association at Sussex University in August last, spelled out in more measured (but no less forceful) terms his commitment to equality and, as part of this, his total opposition to private education.

Mr Hattersley's hostility to elitism in education is certainly no less than Mr Kinnock's - it may even be more, because he was scarred by spending a few years at a modest private school in the days of his asthmatic youth, while Mr Kinnock undoubtedly bears the positive stigma of a Welsh grammar school.

Knowing political commentators see it as Mr Kinnock's task now to bring Labour back from its *gauchiste* sectarianism and recapture those working class and middle class voters who must have gone over to the Alliance or to the Conservatives at the last election. Without a hint of cynicism, they assume that the man to dish the left and woo the centre is Mr Michael Foot's heir, the brilliant and witty demagogue who made his way up the left-wing Tribune ladder to near the top of his party before beginning his sideways shuffle to the leadership.

It would be difficult to overestimate the magnitude of his task, or the finesse which he is being expected to show. Political commentators (probably rightly) are inclined to regard no U-turn, however spectacular, as beyond the scope of a politician. To some extent, Mr Kinnock's credibility will depend on matters beyond his control such as the errors or misfortunes which may, at any time, plague Mrs Thatcher and her colleagues. But there still remain

tricky matters of policy, and in the context of education, the reconstruction and reformulation of Labour's plans in a shape and form which will have a direct appeal to those moderate and conservative groups who quit the party in 1983. The independent school issue - though by no means the central educational issue - caused the SDP a good deal of heart-searching before a sensible determination not to put potential voters off carried the day. Labour may have difficulty in emulating the pragmatism of the SDP but still need to find a way of retreating from their more exposed positions.

The suppleness of Messrs Kinnock and Hattersley is going to be tested to the full, but so too is their style and judgment. They have somehow to wear the party away from the surfeit of policy which the party enthusiasts demand as a means of pinning politicians like Mr Kinnock down. Mr Kinnock, for all his experience, knows that government isn't like that and that the electorate is less impressed by details of paper plans than by a limited, realistic programme which gives a few clear signposts for the future direction of affairs. In this education could still be important because there must even now be many people in Britain whose idealism could be rekindled by a party which really believed in the future enough to give education a high priority.

COMMENT

HMI's on thin ice

The HMI's report on the sociology and social studies degree courses at the Polytechnic of North London (page 5) raises more questions than it answers.

It prompts basic questions about the role of the Inspectorate in higher education - confined as it has hitherto been to the public sector, but now in pursuance of DfES policies on teacher training, increasingly impinging on the universities as well. HMIs will have a much rougher ride in polytechnics than in schools: as in this latest case, their judgments will be strongly contested and the obvious limitations of their own experience exposed.

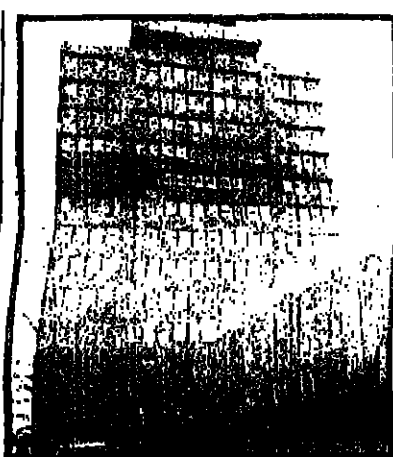
This report also points to the conflict which will arise between the CNA - the body responsible for the academic validation of most public sector courses for degree purposes - and the Inspectorate, independent in judgment but, nevertheless, a body operating under the direction and at the disposal of the Secretary of State.

This, too, has to be faced in plans for tightening up teacher training: periodical collisions on questions of accreditation and validation seem inevitable.

In the case of North London Poly, the Inspectors were sent in because of allegations of Marxist bias. The same allegations had prompted a CNA review which rejected the charges and endorsed the validation of the courses for degree awards.

If things are as bad as the HMIs say, how did the CNA come to renew the seal of approval? The HMIs do not say anything, explicitly, about Marxist bias. Most of their critical judgments are about the basic quality of the education - the process itself, and whether the experience which students were being given constituted something of sufficient rigour and depth to constitute "higher education".

HMIs are not given to hyperbole but by their standards the report was outspoken in its condemnation of weaknesses in the teaching, the limited course content and the casualness with which the students and staff set about their business. The inference can only be that they believed that the narrowness of the content and the lack of rigour, combined with the way in which individual members of staff



North London Poly: more questions

ried a real risk of political distortion.

The CNA evidently took a much more favourable view of the two departments. Did the CNA assessors study the process as well as the content and the assessment technique? Or did they accept, as normal, the allegedly sloppy practices which shocked the HMIs? Last week, the Inspectorate published a wider report on teaching in the polytechnics which was highly critical and made some of the same general points which have now been made particular in the case of North London.

The other major question raised by the report concerns the whole matter of "open access" - the admission of mature students without ordinary qualifications. The object of broadening entry and recognizing other kinds of experience is important. But "open access" is not meant to be an excuse for soft options or spoon-feeding: not, that is, unless colleges want to short-change the intended beneficiaries. Nor should it be a cover for *agrippa*... The Open University has been wrestling with these matters since its inception - not without accusations of political bias and of using techniques of course construction which come closer to spoon-feeding than would be acceptable in many conventional university courses.

It is most important that access to higher education should be widened, and extended to more men and women who can bring to their studies experience and insights from many walks of life and fields of work. Increasingly this may depend on flexible admission arrangements, and as the HMIs' report last week acknowledged, on getting away from a slavish dependence on

makes it especially necessary to use this row over North London Polytechnic - and any possible inquiry which Sir Keith Joseph may now set up - constructively, rather than allow it to deal a blow to all unconventional admission schemes.

Sir Keith's inquiry, if it materializes, may well be aimed at the CNA which seems to be moving into the target zone. It would be no surprise to find its independence and standing increasingly unpopular among the new imperialists of Elizabeth House.

Primary matters

The Schools Council's working paper on *Primary Practices* (page 8) is not quite its swansong. But it is a good testimonial for the Council's late practical phase. It's a concise and usable handbook for primary schools, summarizing recent thought and practice in various aspects of primary curriculum and organization.

It is quietly scathing about the evidence that many primaries fail to think through their curriculum and assessment methods outside the basics of language and mathematics. It raises important questions about how far schools actually encourage the social and personal development of children in practice, as well as in theory. It provides clear checklists and pointers to help primary staffs tackle curriculum planning in reasonably precise and manageable ways.

Putting this booklet into every primary staffroom is a useful contribution to the further improvement of primary practice. From the point of view of many class teachers, recent demands placed on primary schools look pretty daunting - not least the demand that they should lay much more solid foundations for subjects other than the basics.

Outside mathematics, where plenty of guidance is available and progress is relatively easy to assess, it is not easy to move from a style where class teachers largely determine the day to day curriculum of their pupils, to one where the curriculum is planned in all areas, and progress is systematically checked. It is particularly difficult to see how to do this without losing the considerable benefits of the class teachers' independence. The Schools Council working paper seems a good

way of getting started.

On a narrower front, the Times London Education Authority has now formally launched its working party on successful primary practice in inner city schools (also page 8). The group will have useful evidence from an ILEA longitudinal study to build on, and, with former Chief HMI Norman Thomas in the chair and strong teacher representation, it is unlikely to endorse superficial signs of concern for city children's problems with genuine achievement. Primary schools can certainly do a lot through better planning and self-help. But it is still necessary to put resources into identifying and disseminating good practice, and providing outside help for schools that want to review their work.

Misguided opposition

The ILEA's long-awaited guidelines to promote multicultural policy and combat racism deserve to be welcomed, not attacked.

It is true that it is going to involve extra work for schools and their teachers, and sets probably over-ambitious targets for creptions, promotions and curriculum change. But the general thrust of the programme, which is remarkably similar to that already in operation in Bradford (page 12) is right.

When Conservative-controlled Bradford launched its scheme, it was greeted with similar opposition. But at least Bradford did not have the Centre for Policy Studies using the issue as a means of maintaining its vendetta against Ken Livingstone.

It is worth recalling (perhaps for the benefit of Dr David Hart) that, when The TES polled teacher opinion in May, a clear majority were in favour of a declared policy to combat racism in the classroom.

no comment

"When my daughter entered medical school, she found her most useful asset was that she was accustomed to using a Black and Decker."

Ms Jane Finlay, deputy chairman of the Equal Opportunities Commission, speaking at the annual conference of the Institute of Careers Officers this week.

Second opinion

It depends what you mean by training

One dictionary definition of training "to prepare for performance by instruction". Education on the other hand, has something to do with "the whole personality, and the suggestion of larger dimensions."

Traditionally, education has taken place in schools and universities, in FE colleges and in the workplace, and perhaps a combination of education and training in polytechnics and colleges of education.

The Royal Society of Arts' *Education for Capability* project suggests that education produces people who understand but cannot act, whereas training is concerned with doing and organizing. (But not understanding? Could this be dangerous? RSA literature brings the two together (or begs the question) defining a well-balanced education embracing analysis and the application of knowledge on the one hand, and the other "the exercise of skills, the competence to act, and complete tasks and the scope with everyday life... interaction with others". No more, mas here!

The White Paper, *Teaching*, is clear in Section 37 that "the subject teaching... requires... whose study... was at the appropriate to higher education. Yet in Section 71, the recognition of the need for more pre-vocational in schools leads to an offer of their qualified teacher status to "young people with qualifications not acceptable in their own right". The suggestion that the two are might be unified by teacher institutions producing "pre-vocational" teachers, or vocational institutions offering "teacher training" seems a bit "education", "training", and "vocational" by "training/education". Neither of them defined.

Emotion equates education with improvement of the soul; training with doing a job to earn a living and help the country's competitiveness. But not such a trivial approach does the old of gaining self-confidence through success in a vocational training course as much as it belies the vocational value of academic A levels, followed by a university degree, followed by a job in a merchant bank? Hence to courses?

We really are in a muddle. *Colleges of Education* are staffed by *teacher trainers*. ACSET is concerned with the education of teachers, *STET* with their training also.

The FEU's *Supporting YTS* sets them up by referring to *teacher education*, whereas *A New Initiative* separates them on the basis of "an educated, trained and skilled labour force". Fewer than half of further education lecturers are *teacher trainers*. And so on.

If teachers (or even *teacher trainers*) are to be clear about what they are doing, they should invent a working definition of the word, training, to do with putting in, education with taking out?

Or shall we go for the jargon, by both words, and talk about "training experiences"? After all, whatever is being taught, and however, there is point until it is learned.

The trouble is that we have not defined "teaching", "learning", "training", etc, and people like to be lectured, are notorious for their definitions.

W E Bobs
W E Bobs is head of Education at the Administrative School, Barking.

NEWS

Schools face screen test to enter the micro age

by Nick Wood

The microelectronics revolution could sound the death knell for schools unless they keep abreast of the new technologies, according to a major new report from a team of Government advisers.

The report from the influential Information Technology Advisory Panel, which last year made controversial recommendations on cable television, says that IT could "deschool" society.

"Some commentators, having noted that technology has sometimes turned a service into a consumer good... have speculated whether microelectronics could do the same for education."

The parallels are, of course, not exact, but video discs, home computers and so on will provide parents with opportunities for the purchase of effective teaching aids in a way not previously open to them.

"We make no firm predictions, but note that educational institutions generally will need to make effective use of new technologies in order to maintain their position against competing sources of tuition and information."

The report, commissioned by the Prime Minister and published by the Cabinet Office, seeks - to bend the metaphor - to dot the I of IT. Too much attention has been paid to the tools of the new technology and not enough to the message it is carrying. Scattered unrecognized throughout the economy is the "tradeable information sector", embracing publishing, broadcasting, education and training, financial services, entertainment and consultancy. Together such enterprises and organizations already employ a million people and had contributed a positive trade balance of £2,500 million in 1980, but, as yet, their full commercial potential remains unrealized.

The problem is that their chief product, saleable information, is not yet seen as a valuable commodity to be packaged and sold in domestic and world markets, the report says. Information technology, by eroding the barriers that have separated such seemingly diverse activities, can clear the way to a business revolution in which knowledge is bought and sold in much the same way as other, more tangible, goods.

Abstracts of scientific and legal reports, for instance, can be stored on computers, then called up instantaneously on the terminals of users who can be thousands of miles away from the host machine. Far more effort should go into the creation of such commercially viable database, the report says.

Schools have a key role to play in bringing home to people the economic importance of knowledge, it adds. They should "inculcate the concept that information has value and that this value is the foundation of much economic activity".

The report also acknowledges that the use of computers in schools is currently hampered by a lack of suitable software. It says the supply of good programs must be a "priority area" and urges firms to exploit the high standing of the British educational system by producing such material for sale abroad.

Making a Business of Information. Information Technology Advisory Panel. HMSO £4.20

I levels: go-ahead expected this year

by Biddy Passmore

An announcement that the Government plans to go ahead with the introduction of intermediate (I) levels - exams worth half an A level - is expected to be made by Sir Keith Joseph, the Education Secretary, before Christmas.

A paper setting out the plan is nearing completion at the DES. If, as expected, Sir Keith announces his approval, further consultations might be needed before work on the new syllabuses was set in hand, probably by the Secondary Examinations Council.

The Education Secretary gave a broad hint that he planned to go ahead with I levels at last week's annual meeting of the Head Masters' Conference in Cambridge, when he spoke of publishing a discussion paper later this year on "broadening the scope of A level examinations". But he would not say if the proposals would involve I levels because he had not yet seen the papers.

It was especially appropriate that he chose the HMC conference to make the announcement because the idea of the exam originated with public school headmasters and they have consistently championed its introduction.

The proposal is not thought to have changed since Mr Mark Carlisle, then Education Secretary, published his views on the I level in the consultative paper "Examinations 16-18" in October 1980. Only shortage of staff and work on the 16-plus and 17-plus have held up work within the DES.

The new exam would be taken alongside A levels to broaden the curriculum for academic sixth-formers, which has been consistently criticized as too narrow, especially by comparison with practices on the Continent. Students might take one, two or even three I levels at the same time as their two or three A levels, thus encouraging science students to keep up with languages and vice versa.

Mr Carlisle rejected a suggestion from the Schools Council that the exam should be taken by both A level students and those of lower ability. It would be difficult to design a single exam for both, he said, and less academic sixth-formers were being catered for by other developments.

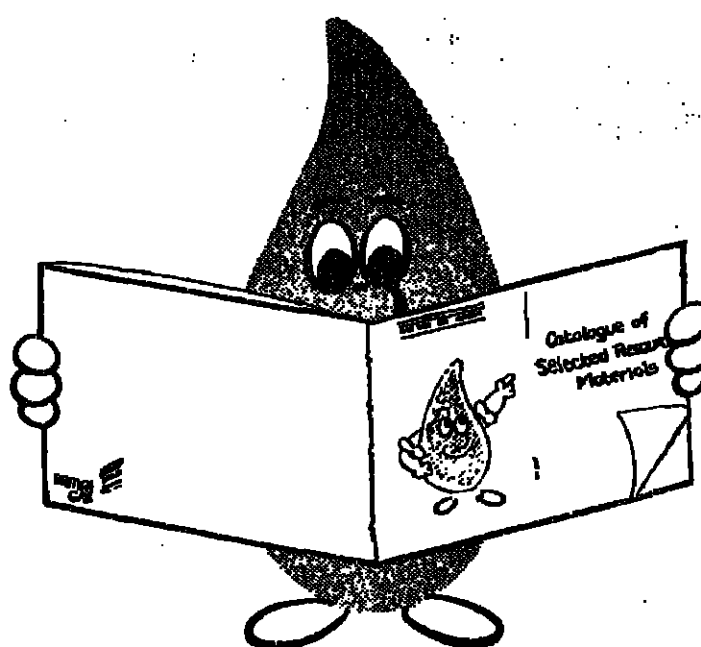
Second cleaner warned

Dudley Council, which put its entire school cleaning service into the hands of private contractors, has told them to improve their standards by the end of the month or face the loss of the contract.

Conservative-controlled Dudley de-

livered the ultimatum as Merion Council announced it had sacked its private contractors, Academy Cleaning Services, following complaints about their work. Merion had earlier given Academy a fortnight to improve its standards.

NEW FROM THE GAS PEOPLE.



A CATALOGUE SPECIALLY FOR HOME ECONOMICS TEACHERS.

Send for our new catalogue of resource materials specially selected for Home Economics teachers.

Everything in it - from teaching materials to films and lecture facilities - is chosen because of its relevance to energy use in the home. To obtain your free copy, simply post the coupon below in an envelope (no stamp required) to:-

To: Educational Liaison Officer (Room 707A), FREEPOST, 326 High Holborn, London WC1V 7BR.
Please send me your new Catalogue of Selected Resource Materials for Home Economics.

Name: _____
School: _____
Address: _____

Gas Region: _____

TES 710

RESOURCEFUL TEACHING AIDS - FROM THE GAS PEOPLE

All-in schools are out of date - Minister

by Biddy Passmore

Comprehensive schools might have suited the 1960s and 1970s but selection is more appropriate for the 1980s and 1990s, Mr Bob Dunn, junior minister for schools, claims in a speech prepared for last Saturday's meeting of the Conservative National Advisory Committee for Education in London.

When Mr Dunn discovered that the meeting, which was held in Conservative Central Office, was to be an informal session he abandoned his speech and spoke off the cuff for a few minutes before he and his fellow junior minister, Mr Peter Brooke, answered questions.

The speech, sent out by Central Office, is the clearest statement yet that Mr Dunn believes education authorities should grasp the opportunity presented by falling rolls to meet parental demand by reintroducing selection (the speech does not refer to grammar schools).

The move to comprehensives for all had been a result of the dictatorship of the Left, it said. Too many Conservative councillors and authorities had taken in with it. Now, however, freedom had returned with the 1979 Education Act.

"Every local authority needs to stop and to think, to take stock how well



Bob Dunn: return of freedom

they are fulfilling their duty to cater for the abilities and aptitudes of the children in their care", it continued.

Comprehensives were relatively easy to introduce at a time of a rising child population but "much harder to sustain" at a time of falling rolls. L.e.s.s. were having to close or amalgamate comprehensives to keep the remaining ones sufficiently big to be both workable and economic.

"But is that what the parents want?" Mr Dunn asked. "Could it be that whatever may or may not have been right in the circumstances of the 1960s and 1970s is now inappropriate for the 1980s and 1990s?"

"Could it be that we should now move forward to a more careful and sophisticated form of provision catering more appropriately for all abilities and aptitudes by teaching those children in groups and in schools with other children of similar ability and aptitude? Parents' choice is pretty meaningless if there is little to choose from."

Sexism found in CDT timetable

by Hilary Wile

The small share of teaching time that many schools allocate to Craft, Design and Technology leads to widespread, if unintentional, discrimination against girls.

According to findings from the Girls' Technology Education Project (GATE), due to be released next week, many schools organize their curriculum so that fewer and fewer pupils take CDT in their second and third years of secondary schooling.

Mr Martin Grant, schoolteacher fellow with the Chelsea College-based project, said this week that the survey showed "so many schools haven't yet come to terms with the Sexual Discrimination Act".

The project surveyed provision in 68 schools in two local education authorities in order to discover what effect timetabling patterns have on take-up of CDT.

A major finding was the extent to which curricular differences for boys and girls continue to exist in secondary schools.

Mr Martin Grant, schoolteacher fellow with the Chelsea College-based project, said this week that the survey showed "so many schools haven't yet come to terms with the Sexual Discrimination Act".

PLATFORM

Felicity Taylor asserts that the arguments against having teachers on a school's governing body do not stand up to close examination

Why teachers are justifying their seat on the board

Governing bodies are changing, and it can be a painful and difficult process. Becoming more effective means becoming more of a nuisance to the administration, less willing to accept directives from the politicians, more ready to raise a riot over cuts in resources.

Not only does it take an active governing body time to find its feet vis-a-vis the local education authority, it must also evolve a cohesive and practical way of working together for the school. Old-style governors, used to rubber-stamping the head's decisions and hurrying off to the next meeting, have to come to terms with the keenness and assiduity of new governors (often the elected parents and teachers) who take their duties very seriously.

Having teacher governors particularly worries some of the old guard. It is suggested that teachers will know too much about the school's affairs, will undermine the head's authority, will cause dissension in the staffroom by betraying confidences; they cannot be expected to comment on the work of colleagues; it is bad for discipline to have assistant teachers involved in the appointment of senior staff.

I am glad to say that none of this has borne out by my research into parent and teacher governors. In fact, schools who have them wonder how they ever managed without them.

All governors are equal, and none should be more, or less, equal than others. This has to be understood if a governing body is to function properly. And, however, governors are appointed, they must learn to put the interests of the school first, above any sectional interest they might be deemed to represent.

Teacher governors soon realize that they cannot be staffroom delegates; it is not only unconstitutional, it is impossible. A staffroom is a collection of individuals who are unlikely to follow any party line, and if teacher governors

try to represent the whole spectrum of staff views, this inhibits them from using their own judgment and performing their duties as governors effectively.

Teacher governors are there because their professional experience, their knowledge of the school and their personal commitment to it are valuable to the governing body.

The teachers in my survey suggested that one of their most important tasks was to "educate" the lay governors about current educational methods and the realities of present-day school life. They were frequently shocked by the ignorance and irrelevance displayed by some of the other governors, and had plenty of horror stories about this, such as the teacher who insisted that he had been asked at his interview which of the city's two football teams he supported. Like the parents in the survey, teachers distrusted "political" governors who, they said, seldom visited the school.

If it is taken for granted that the school's interests come first, conflicts of interest do not present problems. But it is often alleged that teacher governors cannot be impartial because of their personal involvement.

Teachers themselves may be the first to say this. One teacher (not in the survey) had applied for a post as head of department, and been somewhat disappointed to find that the teacher representative at the interview was a man whose work she had criticized when she was a peripatetic advisory teacher. She got the job, but she still thought it was unfair.

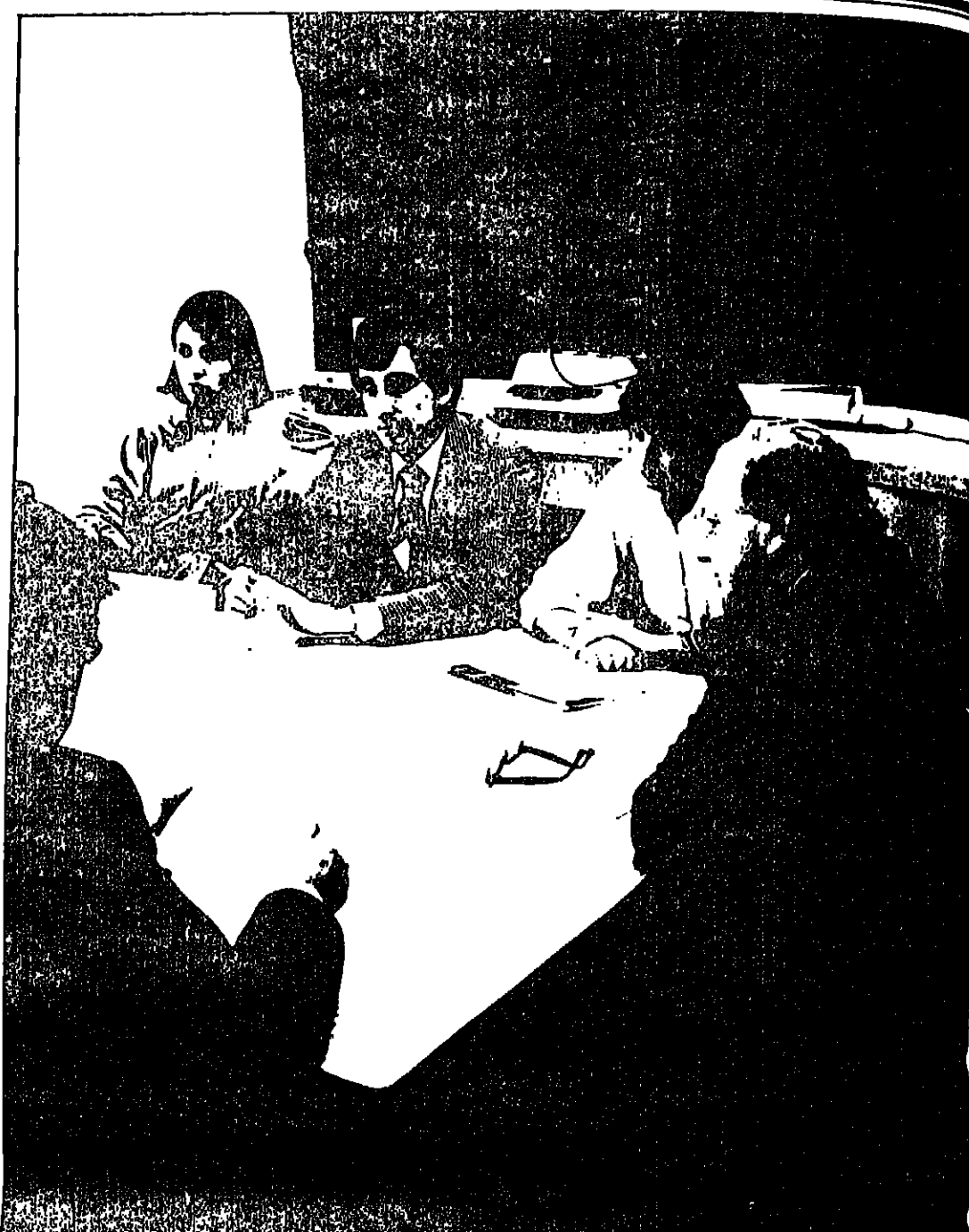
However, there are well-established and sensible guidelines about conflicts of interest that apply to all governors, not just teachers. As long as these are scrupulously followed, there is no reason to forego the useful contribution teachers can make, especially to appointments.

It is rather offensive to suggest that teacher governors (chosen by the whole staff) cannot be trusted to abide by the rules. Many governors have some axe to grind, but fellow governors are usually quick to spot this and discount their arguments accordingly.

This leads on to the question as to what extent the proceedings of governors' meetings should be confidential. There is no shortage of those who want to keep everything secret, sometimes on the most spurious grounds. I once knew a head who refused to produce written reports for the governors, in case the documents got into the "wrong" hands.

In practice the governors in the survey had had few problems over confidentiality, though one respondent said that he was not allowed to report back to his colleagues. The real difficulty was not the leakage of sensitive information, but the lack of interest other staff took in what the governors were doing.

Most teacher governors were disillusioned about this. They posted up minutes and agendas, prepared reports for staff meetings, held discussions on special topics, but there was little response. Yet in contrast to the low level of interest, there was a high level of formal participation. Almost every teacher voted in the elections for



Old-style governors, used to rubber-stamping the head's decisions, are having to come to terms with the keenness of new governors who take their duties very seriously.

errors' attendance record at meetings was equalled only by the parents.

Heads sometimes assert there is no need for teacher governors because the staff are represented by the head and deputy head. This is rather like management saying that they represent the interests of the workforce.

However good the relations between them are, the perspective is different, and equally valid. Some heads shield their staff from the ordeal of reporting in person to the governors, often quite unnecessarily, as teachers are usually glad to have the chance to talk about their job.

This protectiveness may disguise a fear of potential conflict between the head and teacher governors. Heads may be anxious about maintaining their authority, and the more insecure this is the more anxious they are.

Teachers are just as nervous about publicly opposing the head. Yet in the survey schools, damaging confronta-

tions were rare. Heads in the survey found they could almost always depend on the support of the staff. Yet if there are serious disagreements within a school between the head, senior staff or rank and file, ought not the governors to be aware of them? An effective governing body could be the forum where such disputes could be discussed and successfully resolved. Several teacher governors spoke of the greater insight being a governor had given them into the constraints to which the school was subject, and they felt they had a better understanding of the reasons for some uncomfortable and unpopular decisions.

Heads in the survey found they could almost always depend on the support of the staff. Yet if there are serious disagreements within a school between the head, senior staff or rank and file, ought not the governors to be aware of them? An effective governing body could be the forum where such disputes could be discussed and successfully resolved. Several teacher governors spoke of the greater insight being a governor had given them into the constraints to which the school was subject, and they felt they had a better understanding of the reasons for some uncomfortable and unpopular decisions.

Heads in the survey found they could almost always depend on the support of the staff. Yet if there are serious disagreements within a school between the head, senior staff or rank and file, ought not the governors to be aware of them? An effective governing body could be the forum where such disputes could be discussed and successfully resolved. Several teacher governors spoke of the greater insight being a governor had given them into the constraints to which the school was subject, and they felt they had a better understanding of the reasons for some uncomfortable and unpopular decisions.

Felicity Taylor's project "Accountability in Education: the role of elected parent and teacher governors of schools and their relationship with their constituencies" was funded by the SSRC and sponsored by the Centre for Institutional Studies at the North East London Polytechnic. It concentrated on the governing bodies of seven mixed 11-18 comprehensive schools. Four were in Sheffield and three in inner London. She attended at least one governors' meeting at each school and interviewed heads, parent and teacher governors, and a small number of pupil governors. The schools also received a questionnaire which was completed by 143 parents and 57 teachers.

tions did not happen. Heads found that they could rely on professional support from the teacher governors, which was all the more convincing because of their electoral independence.

This was particularly useful when new teaching initiatives were being proposed. As one head said: "I can't know everything, and they can supply the different viewpoints of different ages and different disciplines."

Staff governors generally managed to work out acceptable ways of coping with differences of opinion. For example, heads would discuss their report to the governors before the meeting, and the governors would discuss the head's

presence and the support of parent and teacher governors at appointments as well as business meetings.

Can this go too easy? Does it produce a hidden majority in favour of the status quo? Might it not be tempting, for example, always to promote Buggins, who is conscientious, hard-working, familiar and safe, when the school could do with the stimulus of new blood?

I think the Taylor Report got it right when it proposed that there should be equal representation of four groups - parents, teachers, i.e. the school community. The checks and balances

are needed to prevent an abuse of power by any one group. If the school is to be a place where the interests of all are represented, though it is no use if the representatives do not attend.

An imbalance between any of the groups can lead to trouble. Too many teachers - and the teachers' union - threatened and defensive. Too few teachers - and the professional over too dominant. (This can happen when local authority employees are asked to serve as governors. In one school, Sheffield, two of the three parent governors were local primary school teachers. Sometimes several members of staff are encouraged to attend in official, which can be intimidating for other governors.)

But a governing body will do anything other than a good job if its members fail to exercise their powers in a sensible and constructive way. My project was part of the Science Research Council's investigation into accountability in education. When teachers hear the word "accountability" their hackles begin to rise. It need not be the destructive force many teachers seem to fear. I.e. a.s. now have a system under which the head and staff are asked to explain often for the first time, the aims of the school and how they are to be achieved.

This is where staff governors can restrain the natural tendency of the head to gloss over some inconvenient realities. Then the plan must be to open discussion with the whole governing body, and no plan is so good that it cannot be improved. When governors have had a chance to hear their contribution, and a plan has been hammered out that all can support, the school is in a much stronger position to face with equanimity the attacks of the ignorant and the malicious. They are eager to pounce on any sign of vulnerability, and even more vulnerable if it can justify its demands for resources it needs to fulfil its aims.

After all, when you submit an account, you do expect to get it.

Felicity Taylor's report is published by the CIS Commentary Series, available from NELPCO, Dunstable Park, Luton.

Nick Wood reports on a warning to halt dissection lessons

Animal group threatens arson at school

A self-styled animal liberation group is threatening to burn down the animal house at a comprehensive school unless it bans dissection.

The warning by the Animal Liberation Front, which claims to have carried out 12 raids on nine schools and colleges in Dorset and Hampshire over the past 10 months, was dubbed on the door of the biology laboratories at the 1420-pupil Ferndown Upper School in Bournemouth.

The spray-paint message said: "Stop dissection: next time we burn". The raid, carried out over the weekend, was the third on Ferndown since April. Some 50 white mice were taken from the school and two cages were placed on the tennis courts and set on fire. The school minibus was doused with slogans and will have to be scrapped. Damage runs into several hundred pounds.

Mrs Margaret Tilley, the headmistress, said the school was taking the threat seriously. "There's no question of our restocking the animal house at the moment. People threatening to burn the school is something we cannot ignore."

Instead, the school will consider buying freshly killed animals from commercial suppliers when they are needed by sixth-formers who have to perform three dissections as part of their A level biology course.

The school has already failed in its attempt to persuade the London GCE board to waive the requirement for biology candidates to do dissections. The ALF threat to the school was confirmed by Mrs Sylvia Bolt, a 35-year-old mother of two children living in Bournemouth, who acts as the group's spokesman.

"I believe the ALF means it," she said. "I'm sorry it has come to this, but at the last raid they discovered the school had more mice than ever. They were being kept in very dirty conditions and some of the baby mice had died and were covered in maggots."

Mrs Bolt claimed that dissections were carried out in front of children as young as 13 at Ferndown and that the school was "teaching children cruelty to animals."

"There's no way they want to burn the school down - it applies to the animal house only. It will be carefully monitored and done properly."

Mrs Tilley denied that the mice were badly cared for or that they were dissected by children in the junior forms. "I feel angry because they (the ALF) are just not interested in finding out what our animals are used for. They also show a total disregard for the property and the students and the staff. The implication they are cruel to animals."



Margaret Tilley: angry



'Liberated' Ferndown mice after the raid

Most of the mice were kept so children could study their behaviour and learn about genetics through breeding experiments, she added. Only occasionally did the sixth form require them for dissection.

Mrs Bolt denied that the mice and rats taken from schools and colleges were released in the wild. The members of the front made sure they all had "good homes to go to" before they were "rescued". But some frogs and tropical lizards taken from Winchester College, the leading public school, had been set free in a greenhouse.

Children were upset at the sight of animals being treated as "laboratory tools", she said. "If children see animals as creatures in their own right they will learn to treat them with respect. If they see them as laboratory tools to be treated as objects, to be killed and cut up, that will lead to them being violent in later life."

"I don't see why we should treat animals any differently from humans."

Officers of Dorset education authority are preparing an urgent report on the raids for the education committee.

"We will be drawing the seriousness of this matter - the attacks on our schools and the threat to the maintained system - to the attention of the education committee", Mr Robert Hymers, principal assistant education officer for schools, said.

"It's important the public should understand the responsible way in which the curriculum is handled in schools. The misinterpretations put on it by prejudiced groups should not be allowed free rein in the press."

Dorset police said they were treating the raids as burglaries. Inquiries are continuing into four separate incidents involving schools in the county.

"Clearly, the arson threat is viewed very seriously", a spokesman said.

● A Labour-controlled education committee wants to sever all links with examination boards that require dissection of animals as part of their courses (Richard Garner writes).

Newham council instructed its officers on Tuesday night to enter into discussions with the examination boards with a view to getting them to drop the requirement from their A level courses in biology and zoology. If this proves unsuccessful, the officers have been told to see if there are any other boards which do not require the use of dissection.

In addition, a report is being prepared for the education committee on the keeping of animals in schools after the adoption by the authority of an "animal welfare charter" which states that schools should be dissuaded from keeping animals.

NEWS

Sir Keith threatens to probe poly's disputed courses

by Philip Venning

Sir Keith Joseph, the Education Secretary, has threatened to set up his own inquiry into sociology and social studies courses at the Polytechnic of North London unless changes are made in the light of a critical report by HM Inspectorate.

The report, which refers to weak students' narrow teaching, and courses students cannot fail, contrasts with an unpublished one produced by the Council for National Academic Awards, which revaluated revised courses earlier this year.

The CNAA inquiry was prompted by allegations by a lecturer, Miss Maryann Jeffrey, of Marxist bias and bad academic practices, allegations that the CNAA strongly reject.

The polytechnic, and the sociology department in particular, was a hotbed of student radicalism in the seventies, and the subject of successive claims about left-wing bias. In 1975 Lady Cox, then a lecturer at the poly and now a confidante of Sir Keith Joseph, was one of the authors of a book claiming that PNL was being turned into a revolutionary political base.

Though the HMI report neither confirms nor denies political bias, it does say that in later years staff are allowed to develop their own perspectives, which "could, but need not, lead to bias".

It also refers to "narrow and partisan" opinion dissertations, and the noticeable tendency of tutors to present limited viewpoints. "It is difficult to see why students should be subjected to them in an academic environment, though the tutor openly stated that they were views of the 'extreme left'."

Though no details are available of Sir Keith's possible inquiry, it is likely to consider wider questions such as how the CNAA could validate courses of obviously poor academic quality, and what is the best way of treating unqualified mature students for whom the courses are particularly designed.

The main burden of the HMI criticisms falls on the way that the staff attempt to compensate for the fact that few students have formal academic qualifications. This results in spoon-feeding, and the fact that students can opt out of parts of the course they dislike or find too hard. It is also accompanied by a casual and undisciplined approach to the subject.

"For those students not of the highest calibre, the teachers' summaries and interpretations of the material are likely to become the sole core facts that they need to know. Over-simplification and even distortion can creep in."

"Overall, lectures and seminars together provided a classic example of the pitfalls of 'unstreamed' teaching; all too often, the attempt to solve these problems resulted in sub-degree level aims and spoon-feeding techniques."

It appeared "that in both teaching and marking tutors had over-compensated because of their concern to allay the natural anxieties felt by non-traditional students about assessment procedures and examinations. They were too preoccupied by the difficulties students might face in completing projects and dissertations and, as a result, had built into the courses elaborate procedures to allow for extenuating circumstances should students fail to hand in work for assessment. For similar reasons tutors circulated quite defined revision topics well in advance of examinations." The fail-safe procedures made it inevitable that almost all students passed.

Though there were cases where students were well read on their subject, much student work was very limited in scope and depth, frequently with poor spelling and grammar. The inspectors also criticize the casual approach to study of many students, with lectures constantly interrupted by late arrivals and talk.

As a result, students were mostly unaware of conflicting theoretical perspectives; the majority of students only very slowly learned to marshal facts, classify material, and present arguments.

In the applied social studies course, in particular some tutors did not seem

to have full knowledge of the subject they were lecturing on, and descriptive and anecdotal accounts were offered in place of serious teaching.

Commenting on how the situation had become so bad, in spite of the department's long history of being under scrutiny, the inspectors say that neither the CNAA validation process, with its heavy reliance on printed syllabuses, nor the external examiner system, were necessarily designed to identify the problems.

The inspectors' visit to PNL took place over six days shortly before final exams this year - a fact which raises doubts over their findings. Mr David Croome, deputy director of the poly said this week.

He drew attention to the fact that the CNAA had praised teaching on the course, and that the external exam system ensured that their students

were up to standards elsewhere. A new system of monitoring student progress had been introduced and the courses this year had been extensively revised.

The two heads of the respective departments, Dr Paul Corrigan and Mr Noel Parry, said the report was an attempt by Sir Keith's department to restrict the equality of opportunity policy of the Inner London Education Authority.

It represented only a part of a series of politically inspired allegations "about the polytechnic demonstrating the political direction of the inspectorate."

Dr Edwin Kerr, CNAA director, said: "Unless I have missed something, there is no statement made in the report to the effect that the council has awarded any degrees to any student that it should not have awarded."

Education Equipment Exhibition

The Crest Hotel, Bristol.
October 24th-26th 1983.

An open invitation for all who teach or are involved in the procurement of educational equipment.

Organised by the leading product information journal - Education Equipment

For further information and tickets contact:
Education Equipment, Benn Publications Ltd,
Sovereign Way, Tonbridge, Kent TN9 1RW.

24 October - 11 am to 8 pm
25 October - 10 am to 8 pm
26 October - 10 am to 4 pm

The Crest Hotel, Filton Road, Hambrook, Bristol BS16 1QC
is situated conveniently close to the Bristol Parkway
Station, the M4 and M5 motorways.



THE COLLEGE OF PRECEPTORS

Incorporated by Royal Charter 20th March 1849
Invites applications from those engaged in education for

TWO NEW CLASSES OF MEMBERSHIP

Member (MCollP) to recognise good professional practice in a tangible way.
Ordinary Fellow (FCollP) the senior Class of College Membership reserved for those who have made an outstanding contribution to education.

The College of Preceptors is an Examining Body and a Teachers' Society which has Members throughout the world.
For a copy of the Membership Guide, please contact:
Chief Administrative Officer
The College of Preceptors
7 Aldgate Station
London EC3A 7AE
Tel: 01-637 0795

NEWS

More places and money give students hope

by Biddy Passmore

Prospects for sixth-formers seeking a higher education place next year grew distinctly brighter this week.

Not only has the Government urged universities to squeeze in an extra 4,000 to 5,000 students in each of the next two years (albeit with no more cash), but at least some of the extra money requested by the National Advisory Body for maintaining student intake to polytechnics and colleges is likely to be granted by the Department of Education.

This apparent shift in Government policy has arisen from increasing concern among ministers about the denial of higher education opportunities to bright young people. Up till now, the polytechnics and other public sector colleges have been able to "mop up" many of the 18-year-olds who failed to get a university place so that the proportion of the age group going into some sort of higher education has actually risen.

But the exercise to cut 10 per cent from the public sector, which is being carried out by NAB, starts to bite next year. And NAB recently told the Government it would need some £25m added to its planned budget of £560m if student intake to the public sector was not to fall by between 5,000 and 10,000 next autumn.

Ministers are not expected to agree to the whole £25m. But it now seems likely that NAB will be told to expect some £10m to £15m extra next year. The news should reach the NAB board

in time for its residential meeting next weekend when it will formulate definitive advice on the distribution of cuts among its 400 institutions.

Meanwhile, university vice-chancellors have been looking this week at areas where they could accommodate extra students next autumn at no extra cost.

They have received a letter from Sir Edward Parkes, outgoing chairman of the University Grants Committee, asking them if they could admit additional students "so far as possible in vocational and technological subjects" in 1984-85 and 1985-86 only.

The letter says: "It will be for you to judge the continuing effect on your unit of resource. The Government is not proposing to provide additional funds apart from fees."

Sir Edward's letter follows one in similar terms that he received from Mr Richard Bird, a deputy secretary at the DES. Mr Bird suggested that university intake next autumn might rise from its currently estimated level of 72,000 to some 76,000. Under the three-year contraction planned by the UGC in 1980, it would have fallen to 70,000.

The UGC's agreement to pass on the request represents a dramatic move away from its policy of protecting quality by maintaining spending per student ("the unit of resource") at the expense of student numbers.

Last Thursday, Lord Flowers, rector of London's Imperial College of Science and Technology and chairman of the vice-chancellors' committee, said



Lord Flowers: Standards must be maintained

the universities were prepared to take in more students provided that standards were maintained. "We are not prepared to take extra students beyond that without additional resources," he stated.

Now that rigid quotas have been relaxed, some institutions will be able to squeeze in a few extra students quite easily. At Imperial itself, for instance, 20 places in physics were cut this year simply to hold down the total intake, which can now be restored.

But some have already shed the staff or vacated the buildings which could have accommodated extra students. And others would prefer to expand their number of arts places, which are cheaper than places in "vocational" subjects and which many vice-chancellors feel are under-valued by the present Government. The final subject balance of the extra intake will rest with the UGC.

The whole exercise is being conducted against a background of continuing financial gloom. A recent letter to the UGC from Sir Keith Joseph, the Education Secretary, made it plain they should plan for further reductions and seek more private funding.

Sir Keith is currently arguing with the Treasury for extra funds for the universities and research. But the sums are small - perhaps totalling some £10m - and the cash would go towards items like supernatant, not funding extra students.

Data bank to guide salary negotiators

by Richard Garner

A massive data bank is being compiled by teachers' salary negotiators to aid discussions on next year's pay claim, according to a confidential document prepared jointly by teachers' leaders and local education authority representatives.

Under the plan, the average weekly earnings for a whole host of professions since 1973 will be produced to compare with those of teachers. Teachers' leaders believe this will show just how far they have slipped behind other professions in their earnings.

The work is being carried out jointly by the secretaries of both sides of the Burnham committee, which negotiates teachers' pay. Evidence of the comparative earnings of teachers, police officers, the armed forces, nurses, social workers and a range of jobs in private industry will be produced.

According to the report, the information will also give a breakdown of the relative earnings for men and women in each profession. It is expected to be completed by January when negotiations on the pay claim usually begin in earnest.

In addition, the secretaries are asking the Department of Education and Science to supply relevant information for the data bank to 1970.

A working group to establish the data bank was set up as a result of last year's salary negotiations. Both sides emphasized then that it was not to be another comparability exercise along the lines of the Clegg Commission of Inquiry into teachers' pay in the late 1970s, but merely a fact-finding exercise to help both sides in their future salary deliberations.

However, the teachers believe it will produce useful ammunition as they prepare to lodge a claim which will include a call for the restoration of their salaries to a level nearer those set by both the Houghton and Clegg inquiries.

Work is still being carried out on a report outlining the financial resources of local education authorities which the management side believe will highlight their limited ability to meet such a pay demand.

The report has been accepted by both sides - although they rejected a suggestion that the data bank should

also include information about morale and the quality of the teaching profession. It was felt this would be difficult to collate.

Meanwhile, the TUC's local government committee has affirmed opposition to any attempt by the Government to keep public sector increases down to 3 per cent in a coming pay round.

A union leader has commented that local education authorities for the "more positive" in their thinking, restructuring teachers' pay than teaching union colleagues.

Writing in his union's magazine, *Schoolmaster and Career Teacher*, Fred Smithies, general secretary of the National Association of Schoolmasters/Union of Women Teachers, said: "It ought to be acknowledged that the working party on salary matters there has been more positive thinking from the management side than the teachers' panel."

Mr Smithies singles out the management's call for some mode of payment of teachers as part of a "reward good classroom teachers" as one of the positive ideas put forward by management.

Mr Smithies adds: "In the foreseeable future the working party may either move towards firm contracts or the efforts to produce some beneficial will founder on the rocks of procrastination and exasperation."

He continues: "A crucial question whether or not the management is trying to exploit teachers as opposed to trying genuinely to recognise their worth and needs of teachers. I think that management approaches the extent of the cash commitment to buy what they are after."

Meanwhile, attempts by the management side to link pay and conditions of service in the salary negotiating talks were being discussed by teachers' panel of the working party yesterday.

At its weekend council meeting the Professional Association of Teachers, which is represented on the Burnham committee, welcomed the proposal to link the two. Mr Geoffrey Clegg, assistant secretary, said: "We have never succeeded in talking about salaries until conditions are taken into account alongside them."

Muslim parents appeal to take over five schools

The Muslim parents' group whose bid to take over five Bradford schools and run them as Islamic voluntary aided failed last month is appealing to the Secretary of State.

Mr Riaz Shahid, secretary of the Muslim Parents' Association, said this week he had written to Sir Keith Joseph asking him to reverse the decision of Bradford council not to allow his association to purchase two first, two middle and a secondary school.

"The appeal is on the grounds that the present system does not cater for the needs of Muslim children. It does not offer the Islamic ethos. This results in a loss of self-respect and of identity. Racist attitudes, Anglicans and Jews have their own schools - so why not Muslims? It's an institutional form of racism."

When he has received their replies, Sir Keith plans to take up any special points of interest with individual authorities and to publish a report summarizing his conclusions.

Local authority associations, teacher unions and voluntary bodies have been asked to comment on the draft circular by November 18.

This week's move is a follow-up to circular 6/81, issued in October 1981, which asked authorities to review their curriculum policies in the light of government guidance published in *The School Curriculum*.

tricked and schools with large numbers of ethnic minority pupils.

However, the National Association of Schoolmasters/Union of Women Teachers was still expressing concern about the setting up of fact-finding missions. Mr Nigel Gruchy, its deputy general secretary, described the move as a "dangerous step" which could lead to teachers on the road towards accepting community

DO ADVERTISEMENTS SOMETIMES DISTORT THE TRUTH?

The short answer is yes, some do. Every week hundreds of thousands of advertisements appear for the very first time.

Nearly all of them play fair with the people they are addressed to.

A handful do not. They misrepresent the products they are advertising.

As the Advertising Standards Authority it is our job to make sure these ads are identified, and stopped.

WHAT MAKES AN ADVERTISEMENT MISLEADING?

If a training course had turned a 7 stone weakling into Mr Universe the fact could be advertised because it can be proved.

But a promise to build 'you' into a 15 stone he-man would have us flexing our muscles because the promise could not always be kept.

Makes 'you look younger' might be a reasonable claim for a cosmetic.

But pledging to 'take years off your life' would be an overclaim akin to a promise of eternal youth.

A garden centre's claim that its seedlings would produce a riot of colour in just a few days might be quite contrary to the reality.

Such flowery prose would deserve to be pulled out by the roots. If a brochure advertised a hotel as being '5 minutes walk to the beach', it must not require an Olympic athlete to do it in the time.

As for estate agents, if the phrase 'overlooking the river' translated to 'backing onto a ditch', there would be nothing for it but to show their ad the door.

HOW DO WE JUDGE THE ADS WE LOOK INTO?

Our yardstick is The British Code of Advertising Practice.

Its 500 rules give advertisers precise practical guidance on what they can and cannot say. The rules are also a gauge for media owners to assess the acceptability of any advertising they are asked to publish.

The Code covers magazines, newspapers, cinema commercials, brochures,

leaflets, posters, circulars posted to you, and now commercials on video tapes.

The ASA is not responsible for TV and radio advertising. Though the rules are very similar they are administered by

we or the public challenge to back up their claims with solid evidence.

If they cannot, or refuse to, we ask them either to amend the ads or withdraw them completely.

Nearly all agree without any further argument.

In any case we inform the publishers, who will not knowingly accept any ad which we have decided contravenes the Code.

If the advertiser refuses to withdraw the advertisement he will find it hard if not impossible to have it published.

WHOSE INTERESTS DO WE REALLY REFLECT?

The Advertising Standards Authority was not created by law and has no legal powers.

Not unnaturally some people are sceptical about its effectiveness.

In fact the Advertising Standards Authority was set up by the advertising business to make sure the system of self-control worked in the public interest.

For this to be credible, the ASA has to be totally independent of the business.

Neither the chairman nor the majority of ASA council members is allowed to have any involvement in advertising.

Though administrative costs are met by a levy on the business, no advertiser has any influence over ASA decisions.

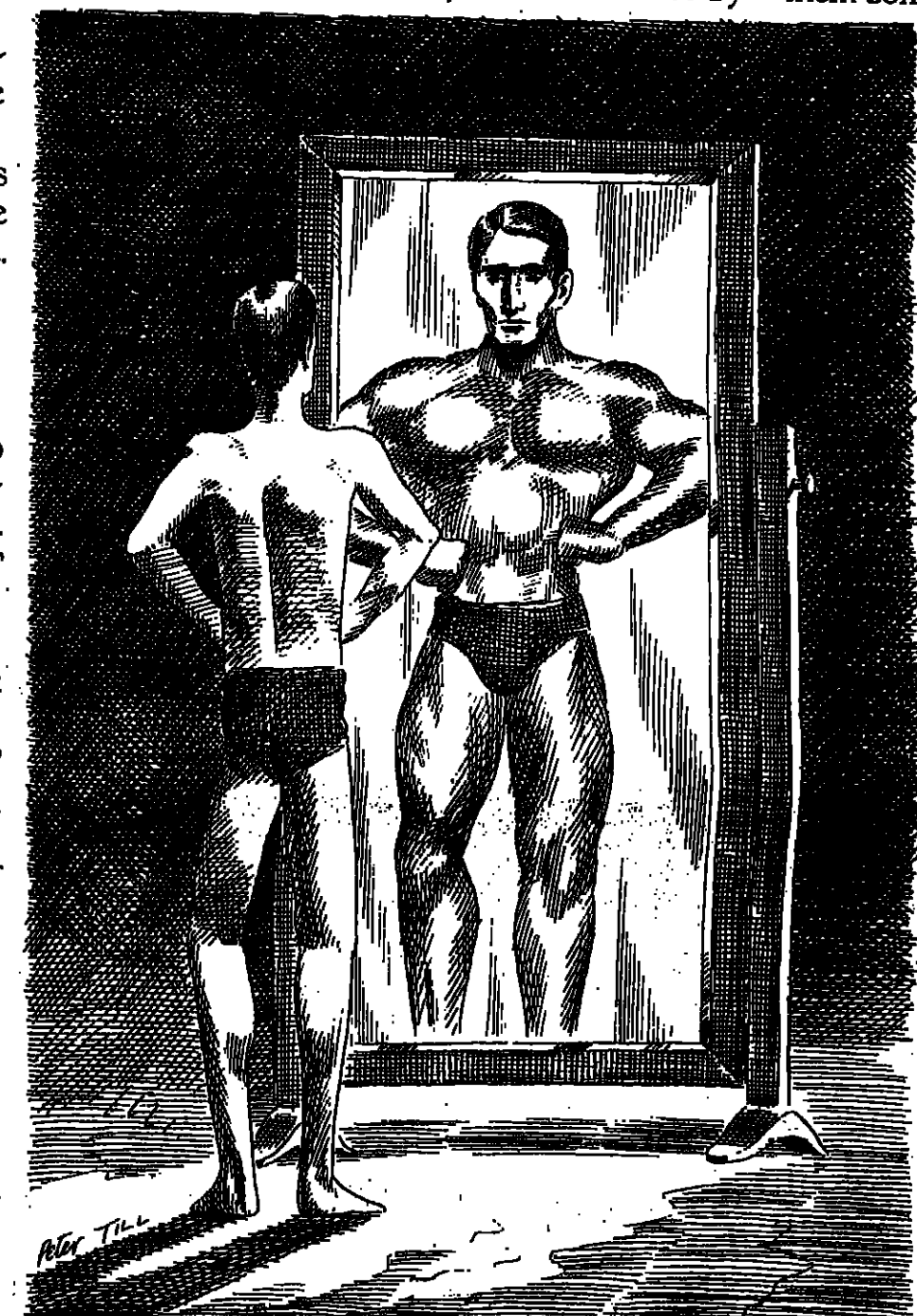
Advertisers are aware it is as much in their own interests as it is in the public's that honesty should be seen to prevail.

If you would like to know more about the ASA and the rules it seeks to enforce you can write to us at the address below for an abridged copy of the Code.

The Advertising Standards Authority

If an advertisement is wrong, we're here to put it right.

ASA Ltd, Dept. T, Brook House, Torrington Place, London WC1E 7HN.



Place for dialect urged

by Diane Spencer

Black children should not be penalized for using a dialect or Creole words in English exams, the Schools Council says in a discussion document on its "Assessment in a Multicultural Society" project.

It says bad spelling and punctuation should not always lose marks and all candidates should be given the chance to show their command of non-standard English. Questions based on a close study of Shakespeare's texts should be optional, "bearing in mind the inherent language difficulties of the texts."

Mr Laurie Fallows, the author, and former adviser on multicultural education in Lancashire, says teachers should be given more say in choosing

books and plays so as to reflect their pupils' backgrounds.

Exams should become school-based with the emphasis on assessment of coursework, although national standards and criteria must be established. The history exam syllabuses should be directionally changed so that they challenge pupils to help to reduce racial prejudices and develop tolerance. Urges another discussion document on the same project, also published this week.

Assessment in a Multicultural Society: English at 16-plus by Laurie Fallows, and History at 16-plus by Nigel Fife, are available from Longman Resources Unit, 33-35, Tanner Row, York YO1 1JP, £2.50 each.

EXTRA MATHEMATICS EXTRAS

The 16 page Mathematics extra in March 26 issue containing an article by Dr W. Cockcroft is available in reprint form. This, together with a four-page résumé on the Cockcroft Report, originally published in the TES, will cost 80p (p & p included). Send all orders to the address below, enclosing your cheque/PO (no cash please) made payable to Times Newspapers Limited.

Nigel Denison
Sales Promotions Manager
The Times Supplements
Priory House, St Johns Lane
London EC1M 4BX

NEWS

Nick Wood discovers great admiration for the PM among the independents

A case of 'follow my leader' for get-tough heads

Mrs Thatcher's tough image is seen to have inspired many independent school headmasters to take a much firmer line over school discipline.

Mr Christopher Turner, headmaster of Stowe School which expelled 12 of its 650 boarders last term for taking drugs, said that heads were no longer afraid to be "authoritarian" and to insist that boys stuck to the rules.

Some of the credit for this shift in attitude should go to the Prime Minister, he said. "You may not like her policies, but people have responded to her tough line. It has been a success, and that's had an effect on schools."

Headmasters had generally cast off the permissive legacy of the 1960s, when "dangerous and destructive influences", notably the drug culture, had penetrated the schools.

Mr Turner added: "At that time,

there was the theory that you should not overfill an adolescent's time, because you had to let him develop in his own way. Unfortunately, that gave him time to be bored and to take up with destructive cultures. There is a feeling we went too far."

School rules, at one time either defunct or non-existent, were now again in force, though not the "petty" regulations about, say, how boys buttoned their jackets.

Heads were not loath to read the riot act to the whole school if the occasion warranted it.

Regulations prohibiting smoking and illicit drinking were being systematically enforced by heads, masters and prefects, and wrong-doers faced tough sanctions.

At Stowe, these range from the cane, to military-style punishments,



Christopher Turner... cast off the permissive legacy. Picture: Laurie Sparham

such as making boys do "hard labour" - cleaning school property, clearing waste ground, and shifting heavy objects - and instructing them to "parade" in the early hours of the morning.

Parents, aware of their children's need for good qualifications and fearful they might turn to drink and drugs, fully supported the crack-down, said Mr Turner.

Catchment shift unjust to parent

by Biddy Passmore

Tory-controlled Bromley Council has been ticked off by the local government ombudsman for changing catchment areas of its schools without consulting parents and heads.

In his report, Dr David Yardley said Bromley's behaviour constituted "misadministration causing injustice".

He has ordered the council to apologise to a parent affected by the changes and to reconsider the catchment areas.

The school at the heart of the case, Cooper's, a former technical school which lost its selective status when the real thing failed to deliver, looked to the fringe.

It was at the SEA meeting, held most inappropriately in a basement night club, that Phillip Whitehead, the number two shadow education spokesman, lost his parliamentary seat in June, admitted in words of one syllable why he heard so little during the election campaign about the policy so assiduously worked out in the preceding four years on private schools, the 16-19s and the over-19s.

The party simply forgot. And, according to Mr Whitehead, it helped Labour to lose the election.

"There had never been such a careful preparation but come the election it was side-tracked," he said. "We knew from the opinion polls that education stood as second or third priority with the voters. I believe we blew it in the election."

There was a feeling that with Labour's chief education spokesman otherwise engaged for the last four months, the party had not really made its voice felt since the election either, with delays and then confused responses on the YTS and TVEI (Mr Whitehead says Labour is bitterly opposed to this "attempt at 14-plus selection" though several Labour authorities are certainly pushing ahead with it). There had also been virtually no response at all on Solihull's move to re-introduce selection, or junior minister Bob Dunn's speeches in favour of the grammar schools.

The delegate from Solihull held out an alarming scenario. The authority wanted selection to be based on IQ tests in the primary schools. In California, he said, parents had been going to other states to have their children's IQ tested by back-street testers. Then they challenged in the courts for the school places they wanted. Visions of crossing the state line into Walsall.

Mr Whitehead was confident on what would be one of the priorities in the next four years. "We will be occupied with fighting the back-to-grammar schools move. But we must also take further in the next Parliament the internal reform of our secondary schools, the reform of syllabus and the examination system; and in further and higher education we must go for a comprehensive system and right of entitlement."

"There were elements in our policy which were a bit novel and a bit strange even to some of our supporters. We must now consolidate them."

Novel and strange seemed to be the reaction of Labour educationists to the recent utterings of Professor Collin MacCabe on comprehensive schools with his solution of creaming off at 14. To the annoyance of party members this was widely interpreted as the view from the Left.

Caroline Benn told the fringe meeting that she had approached Channel 4 on behalf of RICE (the right to a comprehensive education) to put their

Each chapter suggests desirable points that schools might discuss and describes ways in which some projects and individual schools have led curriculum development and innovation in different areas.

In conclusion, the working party suggests that any school considering review and development programmes should:

- Gain the commitment of all staff
- Secure explicit agreement on the purposes of the evaluation
- Agree which members of staff are responsible for collecting and analysing evidence
- Decide which aspects of the school are to be developed, and what is to be done very carefully
- Ensure that all staff are kept informed of progress

Peter Griffin, senior vice-president of the National Union of Teachers, gave support to peace studies in primary schools this week. Mr Griffin chaired the Schools Council meeting.

He said: "Quite young children those days have become very depressed. Tomorrow is going to be like today. There are better alternatives. The integrity of teachers has got to be maintained in educating children in the future."

Primary Practice, Schools Council Working Party, 1983.

The third of the four party conferences finishes today. And we still await our first debate on education.

True, the Socialist Education Association tried, but failed, to get the Labour Party conference this week to debate the move to re-introduce selection in Solihull as an emergency motion.

The conference was also timetabled to debate an SEA resolution on the Youth Training Scheme yesterday after The TES had gone to press. (This if, nothing else broke the record as the longest motion ever submitted to conference).

But the cuts in education, the 10-plus, the TVEI and the renewed selective-versus-comprehensive debate were put off for another year - as they were at the SDP and Liberal conferences.

However, as in the Edinburgh Festival when the real thing fails to deliver, look to the fringe.

David Lister combs the Labour conference fringe in search of the educational policy-makers

Education takes a back seat in the conference hall

case. Channel 4 was considering the request.

Mr Whitehead urged extra-parliamentary action. "Where certain facilities are phased out in schools, local groups must take legal action. This will force them in Parliament to try to water down the 1944 Act and that leads to an outcry. They will be in serious trouble right across the shires. We are getting strange allies these days. In Hereford and Worcester and in Kent attempts to bring in 'super schools' and vouchers have been deeply unpopular with Conservative-voting parents."

Coventry MP Geoffrey Robinson, Labour's science spokesman, thought parents should also be complaining about science education. He told

another fringe meeting that in both primary and secondary schools it was appalling, given the level of technological preparation young people needed. A computer in every secondary school meant nothing when there were not enough trained staff to use them.

Extra-parliamentary action in protest over the Government's rate-capping proposals was also advocated by Eric Heffer, representing the National Executive Committee. But he and conference ruled out moves from Liverpool to have no cuts, no rate or rent increases, and no redundancies. "Not terribly intelligent," he concluded. So the threat of thousands of teacher sackings in inner London alone remains if rate capping is introduced.

The party simply forgot. And, according to Mr Whitehead, it helped Labour to lose the election.

"There had never been such a careful preparation but come the election it was side-tracked," he said. "We knew from the opinion polls that education stood as second or third priority with the voters. I believe we blew it in the election."

There was a feeling that with Labour's chief education spokesman otherwise engaged for the last four months, the party had not really made its voice felt since the election either, with delays and then confused responses on the YTS and TVEI (Mr Whitehead says Labour is bitterly opposed to this "attempt at 14-plus selection" though several Labour authorities are certainly pushing ahead with it). There had also been virtually no response at all on Solihull's move to re-introduce selection, or junior minister Bob Dunn's speeches in favour of the grammar schools.

The delegate from Solihull held out an alarming scenario. The authority wanted selection to be based on IQ tests in the primary schools. In California, he said, parents had been going to other states to have their children's IQ tested by back-street testers. Then they challenged in the courts for the school places they wanted. Visions of crossing the state line into Walsall.

Mr Whitehead was confident on what would be one of the priorities in the next four years. "We will be occupied with fighting the back-to-grammar schools move. But we must also take further in the next Parliament the internal reform of our secondary schools, the reform of syllabus and the examination system; and in further and higher education we must go for a comprehensive system and right of entitlement."

"There were elements in our policy which were a bit novel and a bit strange even to some of our supporters. We must now consolidate them."

Novel and strange seemed to be the reaction of Labour educationists to the recent utterings of Professor Collin MacCabe on comprehensive schools with his solution of creaming off at 14. To the annoyance of party members this was widely interpreted as the view from the Left.

Caroline Benn told the fringe meeting that she had approached Channel 4 on behalf of RICE (the right to a comprehensive education) to put their

Each chapter suggests desirable points that schools might discuss and describes ways in which some projects and individual schools have led curriculum development and innovation in different areas.

In conclusion, the working party suggests that any school considering review and development programmes should:

- Gain the commitment of all staff
- Secure explicit agreement on the purposes of the evaluation
- Agree which members of staff are responsible for collecting and analysing evidence
- Decide which aspects of the school are to be developed, and what is to be done very carefully
- Ensure that all staff are kept informed of progress

Peter Griffin, senior vice-president of the National Union of Teachers, gave support to peace studies in primary schools this week. Mr Griffin chaired the Schools Council meeting.

He said: "Quite young children those days have become very depressed. Tomorrow is going to be like today. There are better alternatives. The integrity of teachers has got to be maintained in educating children in the future."

Primary Practice, Schools Council Working Party, 1983.

The third of the four party conferences finishes today. And we still await our first debate on education.

True, the Socialist Education Association tried, but failed, to get the Labour Party conference this week to debate the move to re-introduce selection in Solihull as an emergency motion.

The conference was also timetabled to debate an SEA resolution on the Youth Training Scheme yesterday after The TES had gone to press. (This if, nothing else broke the record as the longest motion ever submitted to conference).

But the cuts in education, the 10-plus, the TVEI and the renewed selective-versus-comprehensive debate were put off for another year - as they were at the SDP and Liberal conferences.

However, as in the Edinburgh Festival when the real thing fails to deliver, look to the fringe.

NEWS



Graham Lane: forced to remain tight-lipped

Meanwhile it is worth noting that to face a Prime Minister and indeed an SDP president who have both been Education Secretaries, Labour now has a leader and deputy leader who were regarded as particularly effective education spokesmen.

Kinnock's four-year stint as education spokesman coincided with, or perhaps even inspired, the most con-

certed bout of policy-making for years. With him at the helm and Roy Hattersley second in command there is not for the first time an expectation that education will be upgraded in the party's concerns.

"We might at the next election," said SEA general secretary Graham Lane, "actually talk about our education policy to the electorate."

Nine vie for NUT posts

Nine candidates are to compete for three top jobs in the National Union of Teachers - two vice-presidents and treasurer.

Under NUT rules, members vote for a senior and junior vice-president who both succeed in turn to the presidency.

Four currently serving executive members are contesting these elections: Mr Gordon Green, West Midlands executive member; Mr Ken Jones, executive member for Outer London who was secretary of Barking and Dagenham association at the time of the NUT's successful six-week strike against job losses last year; Mr Brian White, executive member for Dorset, Somerset and the Channel Islands; and Mr Bob Richardson, formerly general secretary of the Inner London Teachers' Association, who is still serv-

ing for the area.

The fifth candidate is the only woman to be contesting: Ms Carole Regan, at present treasurer of the Inner London Teachers' Association.

Meanwhile, a battle is developing to determine a successor for Mr John Gray, the outgoing treasurer.

Four candidates include the current president, Mr Don Winters. The others are: Ms Margaret Raff, executive member from Southampton; Ms Hilda Kent, from Westminster, a member of the STA; and Mr Harry Dowson, a long-standing executive member from Sheffield.

If Ms Raff is successful, both she and her predecessor, former NUT president Mr Jack Chambers, would retain their membership of the union executive.

Union in contracts row

A teachers' union has declared a dispute with Ealing education authority over new clauses that have been inserted into fixed-term contracts.

Leaders of the National Union of Teachers in the Conservative-controlled west London borough are protesting over new "waiver" clauses introduced at the beginning of this academic year which would prevent teachers from claiming unfair dismissal if the authority decided not to renew their contracts.

The union believes that as many as 100 of the new contracts have already been signed and is warning that fixed-term posts will be boycotted next year if the clauses are not removed.

NUT officials have also accused the authority of acting illegally in asking a member on a three-month contract to

sign a similar clause. The clause in this contract has since been removed.

The union's legal department had advised the local association that it was illegal to introduce such a clause into contracts of less than one year's duration - and so the NUT had taken up the three-month contract separately with the authority.

Mr Gary Martin, Ealing NUT press officer, said the union wanted to see an independent arbitrator appointed locally to consider the dispute. "If this fails to resolve the situation, we would like national arbitration," he added.

Mrs Anita Fookes, chairman of the education committee, said the dispute over the three-month contract had been resolved and that the authority was looking at the question of fixed-term contracts again.

PRIMARY

Organization means better practice

by Virginia Makins



Greater computer literacy urged by the Schools Council paper

Primary schools are unlikely to improve their practice if they rely on informal organization leading to experiment and innovation. But, according to a new working paper, changes imposed from the top are equally unlikely to prove successful.

In *Primary Practice*, a Schools Council working party suggests ways in which schools could review their general aims and practice in all main curriculum areas, improve assessment methods and planning, and organize teaching and resources more effectively.

The paper reviews recent surveys by HMI and others that suggest that organization, planning, assessment and record-keeping were very sketchy in many primaries. If teachers' aims were not explicit, it was difficult to see how others could understand or support them.

In fast-changing times the need for constant review of what was being taught was essential. Primary children should be introduced to issues such as computer literacy, democratic rights and duties, conservation, Third World studies, and ethnic and cultural diversity.

The working paper is intended as a follow-up to *The Practical Curriculum*, published two years ago, and will be distributed free to all schools in England and Wales. As well as reviewing aims and practice in science, mathematics, language and literacy, social studies, aesthetic education, and religious and moral education, the document considers cohesion through topic work, and concludes that it is far from easy to record and assess what pupils have learned through a single topic, and even harder to ensure progression and coherence in topic work.

The working party will have access to the preliminary findings of an ILEA longitudinal study of primary pupils (the cohort are now third-year juniors). Another ILEA working party on secondary education, chaired by Dr David Hargreaves, of Oxford University's education department, is expected to publish its findings in the near future.

Mr Freddie Morrell, leader of the ILEA, said they were not looking for a fundamental reappraisal of primary practice, most schools were responding well. But some schools had a "top-down" effect on the achievement of pupils.

The working party, to be chaired by Mr Norman Thomas, former chief inspector for primary schools, will include three parents and a trade unionist, as well as teachers and those

London Education Authority inspectors. They are expected to report by autumn 1984.

Mr Thomas said the working party was not looking for a fundamental reappraisal of primary practice, most schools were responding well. But some schools had a "top-down" effect on the achievement of pupils.

The working party will have access to the preliminary findings of an ILEA longitudinal study of primary pupils (the cohort are now third-year juniors). Another ILEA working party on secondary education, chaired by Dr David Hargreaves, of Oxford University's education department, is expected to publish its findings in the near future.

Mr Thomas said the working party was not looking for a fundamental reappraisal of primary practice, most schools were responding well. But some schools had a "top-down" effect on the achievement of pupils.

The working party will have access to the preliminary findings of an ILEA longitudinal study of primary pupils (the cohort are now third-year juniors). Another ILEA working party on secondary education, chaired by Dr David Hargreaves, of Oxford University's education department, is expected to publish its findings in the near future.

Mr Thomas said the working party was not looking for a fundamental reappraisal of primary practice, most schools were responding well. But some schools had a "top-down" effect on the achievement of pupils.

HOW YOUR PUPILS' HANDWRITING COULD WIN A COMPUTER FOR YOUR SCHOOL

The Children's Society 1983 Handwriting Competition for Junior, Middle and Secondary Schools. Prizes: Computers, Cash, Calligraphy Sets. Further details, contact: Marion Brown, Education Dept, Church of England Children's Society, Old Town Hall, Kennington Road, London SE11 4QD. Telephone 01-735 2441.

EJ Arnold Platinum Foundation The Children's Society

The RMI Chain Network has more capacity and capability than ever before. Because both Winchester and double density floppy disc drives are available for it. And it can link a total of 25402 stations. So it now means more than ever the best microcomputer network for Education.

Please send further information on Network 2.

Name _____

Position _____

Address _____

Post Code _____

RESEARCH MACHINES MICROCOMPUTER SYSTEMS

Mill Street, Oxford OX2 0BW

Tel: Oxford 01865 22000

NEWS

Bradford education committee narrowly escaped losing the goodwill of the city's Asian community last week when a move by the opposition Labour group to press ahead with a merger of the two remaining single sex schools was just defeated.

Had Labour won, months of hard work by politicians from all parties, community leaders and officers from the chief executive down, would have been severely undermined.

Single sex schooling was one of the main demands in the Muslim Parents' Association's call, earlier this year, for five of its schools to be established with grant aid. The council's willingness to meet their demands by speeding up the implementation of its multicultural and equal opportunities package helped to persuade Muslim leaders that the city's schools were best for their children.

But the attempt last week to implement a 20-year-old education policy based on different circumstances and ideals could have shattered the newly-won trust of the minority community. Other local authorities see Bradford as a leader in the field of race relations and multicultural education. Yet Bradford had no policy on race until 1981.

In the late 1950s men from the Mirpur district of Kashmir and from Pakistan began to arrive in the city to fill vacancies in the textile industry. Later they brought over their wives and children and by the early 1960s Asian children were to be seen in the schools.

The education committee decided to bus the children to ensure that each school had no more than 10 per cent of immigrants. It was thought this would help assimilation and improve their English. Bussing continued until 1979 and the "accepted" percentage of immigrant children rose to 33.

By 1976 the policy had aroused resentment and intense opposition from Asian parents. A campaign against it was supported by a variety of organizations including Asian community groups, Labour Party branches and the Community Relations Council.

But the education department resisted, arguing it was trying to promote equality of opportunity. Bussing was only abandoned when the Commission for Racial Equality threatened to conduct a formal investigation into educational policies in Bradford.

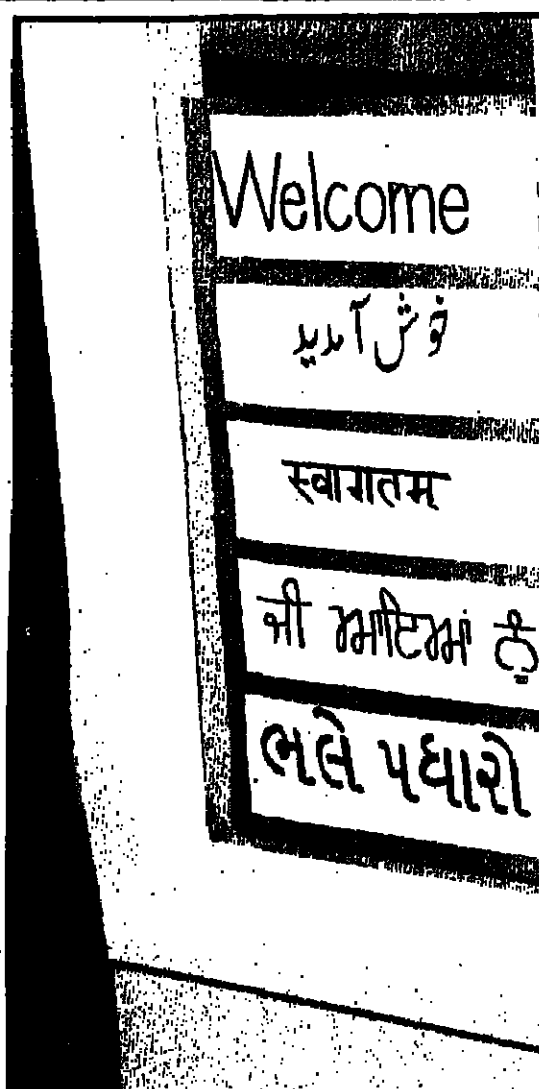
By then, local politicians of both parties began to realize that minority group votes counted and it was, perhaps, time that these communities were consulted. At the same time Asian groups, especially the Muslims, were learning how to make their voices heard.

UK/US SCHOOL EXCHANGE SCHEME

Enquiries are invited from teachers interested in forming a party of 10 pupils to visit an American high school at Easter for 4 weeks.

Accommodation will be with host families. The American participants will visit this country for a similar period at the end of the school year or in the following October/November.

Host schools in Britain and America provide a varied programme of activities in and out of school. Obtain details from: SPECIAL PROGRAMMES, CENTRAL BUREAU FOR EDUCATIONAL VISITS & EXCHANGES, SEYMOUR MEWS HOUSE, SEYMOUR MEWS, LONDON W11 8PE. TEL 01-488 5101



Another factor was the pressure being put on the education department from within the mighty corporate management structure which the council have adopted after local government reorganization in 1974. This pressure came from a policy unit capable of initiating inter-departmental policies.

Bradford's chief executive, Mr Gordon Moore, had already changed his attitude on race. When he first arrived there he had thought: "They will jolly well have to adapt to us". But he came to realize that that view was untenable.

In March 1981 the unit prompted heads of department to publish a document called "Turning Point" which suggested a new approach to race relations. The education department was especially charged to take heed of the demands and needs of ethnic minorities, as it was predicted that by 1996 one-third of Bradford's youngsters would be of Asian descent.

For Bradford this came not a moment too soon. A few months later there was rioting in Brixton and Tottenham and it took little imagination to see smoke rising over Manchester.

Formal consultations between officers and councillors on the newly-created all-party race relations advisory group, and the local community representatives began for the first time.

Previously, according to one officer, the town hall occasionally received

Bussing was seen as helping the assimilation of young Asians

small delegations of "ultra courteous" and "good natured" pupils to discuss a particularly pressing problem.

A race relations policy, stipulated soon followed which said: "Because of the size, structure and ethnic diversity of its population, good race relations are now a matter of fundamental importance to almost all aspects of Bradford's well-being." In a 12-point programme it pledged the promotion of equal opportunity and emphasized the strengths of cultural diversity.

The consultations showed that most grievances centred on education. The Muslim Parents' Association, representing 7,000 parents, was particularly critical. It demanded single sex education for girls, withdrawal of Muslim children from PE, swimming and religious education, and the provision of halal meat.

It was these demands which formed the main points of a local administrative memorandum - always referred to as the LAM - sent to headteachers by Mr Richard Knight, the director of education, in November 1982.

The memo Education for a multi-

Diane Spencer looks at the background to a city's multicultural policy and (opposite) sees how it is working out

How Bradford held on to its lead in race...

cultural society: provision for pupils of ethnic minority communities, aimed at providing information and advice on cultural and religious differences which schools were likely to encounter.

Before the LAM was issued, there was some evidence of good practice, but it was patchy. The LAM stated: "There is a need for consistent and common practice across the district and there is a need also for both ethnic minority parents and headteachers to be perfectly clear about their rights and duties."

It added that education in Bradford sought to find ways of preparing all children for life in a multicultural society, counter racism and racist attitudes and the inequalities and discrimination which resulted, and build on the strengths of cultural diversity.

It called for heads to develop relationships with parents, provide them with information in their own language, allow pupils to withdraw from assemblies and religious education, and stay at home for festivals; make special arrangements for Muslim prayers; allow pupils to wear clothing and ornaments according to their faith; and provide separate PE and swimming lessons for boys and girls above the age of puberty.

The document concluded by telling heads to discuss the contents with staff. All minority organizations were then sent copies and local mosques



already underway as part of the opportunity policy so that key council employees, including heads, were sensitive to the needs of ethnic minorities and are able to combat discrimination and prejudice.

By last April every recruitment post in the authority contained at least one trained member of staff. Steps were being taken to ensure that all those appointed were sympathetic to the city's race policy.

A huge programme of in-service training for teachers in multicultural education and racial awareness has also begun. A similar course for governors will start soon. Appointments are already being made and reasons stated why a particular candidate has not been chosen.

Scarcely had heads digested the LAM when last January the Muslim Parents' Association put in its proposal for five Muslim schools.

Once again this served to concentrate the minds of educationists and politicians; they had to give evidence of good faith to the Muslim community and fast.

By the summer they succeeded in persuading the Council of Mayors, representing Muslim organizations in the city, of their sincerity. By 21 June to 8 the council decided not to back the MPA's proposal.

The shock caused by the plan for separate schools led to the education department speeding up its efforts. But it is clear from last week's visit that the single sex schools are not the only ones that have been moved. Mr Peter Gilmore, chairman of the education committee, cannot be ignored.

Mr Gordon Moore, said: "We have moved a fair old way, but we have a long way to go. But we have got a head of steam and there is no turning back."

Halal meat was introduced last month in 10 schools and Asians are

The separate schools plan shocked Bradford into speeding up reforms

being encouraged to become school governors. About 50 supplementary schools are being urged to use school premises outside hours and the authority will provide them, free for language classes, but charge rent for religious teaching. Advisory and liaison staff have also been strengthened, as has mother tongue teaching.

A major training programme

in the authority contained at least one trained member of staff. Steps were being taken to ensure that all those appointed were sympathetic to the city's race policy.

A huge programme of in-service training for teachers in multicultural education and racial awareness has also begun. A similar course for governors will start soon. Appointments are already being made and reasons stated why a particular candidate has not been chosen.

Scarcely had heads digested the LAM when last January the Muslim Parents' Association put in its proposal for five Muslim schools.

Once again this served to concentrate the minds of educationists and politicians; they had to give evidence of good faith to the Muslim community and fast.

By the summer they succeeded in persuading the Council of Mayors, representing Muslim organizations in the city, of their sincerity. By 21 June to 8 the council decided not to back the MPA's proposal.

The shock caused by the plan for separate schools led to the education department speeding up its efforts. But it is clear from last week's visit that the single sex schools are not the only ones that have been moved. Mr Peter Gilmore, chairman of the education committee, cannot be ignored.

Mr Gordon Moore, said: "We have moved a fair old way, but we have a long way to go. But we have got a head of steam and there is no turning back."

Halal meat was introduced last month in 10 schools and Asians are

being encouraged to become school governors. About 50 supplementary schools are being urged to use school premises outside hours and the authority will provide them, free for language classes, but charge rent for religious teaching. Advisory and liaison staff have also been strengthened, as has mother tongue teaching.

A major training programme

Halal meat poses food for thought

"If it was fish fingers on the menu, halal meat would lose, hands down," remarked Mr Kevin McGee, head of Manningham middle school - one of five that the Muslim Parents' Association planned to buy. It has 97 per cent Asian pupils speaking seven languages.

Halal meat comes from animals other than pigs slaughtered according to Islamic law and ritual. It is served twice a week in 10 schools for some of the 14,000 Muslim pupils in the city's classrooms. At Manningham, some pupils took a little persuading that the meat really was halal, until a representative from the Council of Mosques joined them one day for lunch. In nearby Whitley first school, also one of the five, the younger children needed no convincing.

The education authority plans to extend halal meals to all schools with more than 10 Muslim diners within two years, demand and unions permitting. Apart from protests from so-called animal welfare groups and abusive telephone calls to the chairman of the education committee's home, the scheme had a smooth introduction at the beginning of term.

Mr Michael Whitaker, the officer in charge of implementing the education side of the council's race policy, was keen to emphasize the importance of halal meals as "a tangible, edible proof of our good intentions".

The local administrative memorandum (LAM) issued to schools by the director of education last November giving instructions on multicultural issues to heads, was as yet just a piece of paper as far as many parents were concerned, he added.

Mrs Jane Bingham, deputy head of Whitley, and Mr McGee said they welcomed the LAM although they had

The progress made in the past 15 months has been very, very good - not just in changing the policy of the authority, but in the changing attitudes of the people working in the authority.

already been doing many of its suggestions.

"It heightened our awareness," Mrs Bingham said, "and clarified the issues."

In both schools, assemblies are more the meetings based on themes. ("Teeth was one current theme at Manningham," in Whitley, Mrs Bingham said self used to try to adapt material to suit different religions. Since the LAM they have taken a secular approach using stories and songs. So there is no need for parents to withdraw their children.

Contacts with parents have improved for both schools. At Manningham less than a year ago before Mr McGee took over as head, only 20 or so out of a potential 600 would attend open evenings. "We looked at the best of coming into school, and tried to overcome any difficulties," Mr McGee asked all the children to invite their parents, whom they would accompany and act as interpreters for. He provided a creche, tea and biscuits. In the end, 220 turned up.

At Whitley Urdu and Arabic classes take place after school, as parents requested.

Mr Carlton Duncan, of Wyke Manor Upper School, serving a mainly white catchment area on the outskirts of the city, praised the LAM, but said it did not go far enough. He would like more direction on the curriculum.

To work properly, the curriculum would need more resources, he said. At present eight of his pupils were opted out of PE, so he needed more teachers to occupy them usefully. He agreed that Muslim girls should be allowed private showers, but who would provide curtains? Above all, the curriculum must be monitored to make sure it was complying with it.

The LAM has received a mixed response. It was clear that many teachers were resenting the way it was being imposed, by pushing the school staff to their throats. Back in the day, the school staff had been told to "do as you would be done by".

Mr McGee said that many teachers were resenting the way it was being imposed, by pushing the school staff to their throats. Back in the day, the school staff had been told to "do as you would be done by".



● Above: 'Edible proof of our good intentions' is the significance of halal meat for lunch at Whitley first school. Top, right: girls allowed to wear track suits for PE at Manningham middle school.

tive chairman of the education committee admitted that "many heads were in fear and trepidation and some officers were resistant to change".

But he said: "The progress made in the past 15 months has been very, very good - not just in changing the policy of the authority, but in the changing attitudes of the people working in the authority."

However, judging by the comments from some heads to the first questionnaire, part of a monitoring exercise on progress on the LAM sent out to schools last May, there is still some way to go.

The report on the questionnaire concluded that teachers in schools with the largest number of Asian pupils had modified their work considerably over the previous years and the LAM had given impetus to further changes. Although the guidelines had general support, some schools "with small numbers of ethnic minority pupils still hold the view that the LAM was unnecessary".

"Profoundly misguided, insulting, fallacious," thundered one head of a middle school. "The staff here display astonishing tolerance and goodwill in far from favourable circumstances. They should be given credit for this, not constantly badgered by bureaucratic interference - edicts, 'experts' and headcounts do not provide better relationships; rather they are likely to create resentment, and ultimately a backlash."

But another head said: "The LAM is essential, a 'seat belt law' to create awareness and improve performance."

'The memorandum is essential, a "seat belt law" to improve performance that will not happen without legislation.'

that will not change without legislation. A pity it is so necessary, but such is the nature of structural racism."

The foremost criticism of the council's policy is that it allows the first generation of Asians to keep its grip on the second. Girls are a particular worry for most teachers. But one multicultural adviser pointed out that the LAM made it possible for girls to take part in the full curriculum. If they were allowed to wear track suits for PE, have separate swimming lessons, go to single sex schools, parents would have no excuse to keep them at home. (A recent report suggested that around 700 girls went missing from school at the age of puberty.)

One PE teacher thought that the next generation of Muslim girls would have shaken free of the strict rules. Some already have. One ex-pupil told him that she was going to join the army and be a soldier. "I thought, 'good on you, lass,'" he said.

Mr McGee said that many teachers were resenting the way it was being imposed, by pushing the school staff to their throats. Back in the day, the school staff had been told to "do as you would be done by".

The sooner the better!

Yes, we do want to talk to your 'A' level and B.E.C. candidates about starting a career next year.

Although it is still 1983, we want to mention here something that could be of interest to your hard-working A-level candidates and to those taking a B.E.C. National Diploma in Business Studies. That's because the right sort of success next year will provide one of the qualifications needed when entrants are being considered for our Management Development Programme.

We suggest that anyone with a management career in mind should start the ball rolling early on. During the coming week, we shall be advertising in the national press inviting applications for possible interview over the next few weeks. Then, if we see the all-important personal qualities, we will make an immediate job offer.

Our current full-colour brochure on possible management entry at this level will be sent on request. Please write to:

Manager, Schools Liaison,
Lloyds Bank Plc, Room 38,
78 Cannon Street,
London EC4P 4LN



Lloyds Bank

NEWS

NOTICEBOARD

PEOPLE...

ADMINISTRATIVE APPOINTMENTS

The following appointments have been made to the Business and Technical Education Council: Mr M N Raine (chairman), director, Stothert and P.N. Ltd; Dr A K Barnard, principal, Willesden College of Technology; Mr M Bett, head of personnel, British Telecommunications; Mr K W Childhouse, senior lecturer, West London Institute of Higher Education; Mr G Cooper, general manager (personnel), GKN Group; Mr G Cowell, head of food technology, Blackpool and Fylde College of Further and Higher Education; Mr A K Edwards, deputy director-general, Confederation of British Industry; Mr D Fisher, chief education officer, Hertfordshire; Mr R Frank, general manager, Group Services Division, Chas F Thackeray Ltd; Mr S A Gaurtney, vice-president, National Farmers' Union; Mrs N Harrison, councillor, London Borough of Haringey; Mr G F Jones, deputy chairman, National Westminster Bank; Dr H D Law, president, Portsmouth Polytechnic; Mr J M Lloyd, education officer, Electrical Engineers, Telecommunications and Plumbing Union; Mr P J H Meyer, county councillor, South Glamorgan County Council; Mr H M Neal, chairman, City and Guilds of London Institute; Mr M Norman, vice-principal, York College of Art and Technology; Mr J G C Piffith, chairman, Allied International Designers Group; Mr G Platon, chairman G Platon Ltd; Mrs J Rees, education secretary, National Association of Teachers in Further and Higher Education; Mr J Walker, chairman, William Walker & Sons Ltd; Mrs J Walpole, county councillor, Norfolk; Dr C Wilson, head of department of applied sciences, Belfast College of Technology; Mr W H Wright, chief education officer, Wakefield; Ms Sue Robertson has been appointed senior education officer at the Arts Council.

Mr Robert Porrie, senior careers adviser

at Leicester Polytechnic, to be chairman of the Association of Graduate Careers Advisory Services.

COLLEGE APPOINTMENT

Mrs Ulla Barlow, vice-principal of Percival Whitely College of Further Education, Halifax, to be principal of Brixton College of Further Education from November.

UNIVERSITY APPOINTMENT

David Holdcroft, Reader in Philosophy at the University of Warwick to be professor of philosophy at the University of Leeds from October 1, 1983.

CONFERENCES...

THIS WEEK

Saturday October 8
National Association of Governors and Managers one-day conference on Assessment, Education and the School Governor: "How is your School Doing?" At Sir William Collins School, Chertsey Road, London NW1. Speaker: Tom Marjoram, HMI, followed by seminars and AGM. Enquiries to Alison Kelly 01-485 3739.

NEXT WEEK

Thursday October 13
Association of Colleges for Further and Higher Education one-day conference on the Youth Training Scheme from 10.30 am at the Glaziers Hall, 9 Montague Close, London Bridge, London SE1 9DD. Enquiries to ACFFE at Sheffield Polytechnic, Pond Street, Sheffield S1 1WB. Tel 0742-20911.

Saturday October 15
Standing Conference on Education for International Understanding Annual Conference and AGM on Overseas and Tensions in International Education from 10.30 am at London House, Mecklenburgh Square, London WC1. Enquiries to Robert Creighton, c/o Extramural Department, School of Oriental and African Studies, Malet Street, London WC1E 7HP.

Saturday October 15
END day school on Peace Studies in European Schools, and Colleges to be held in Sheffield Town Hall, Surrey Street, Sheffield 1. Enquiries to John Field,

Northern College, Barnsley S79 3ET.

FORTHCOMING

Saturday November 4
National Association of School Meals Organisers seminar on the school meals service at the Grosvenor Hotel, Victoria, London SW1. For further details and booking forms contact Caroline Ritchie at the Hotel Catering and Institutional Management Association, 191 Trinity Road, London SW17 7HN. Tel 01-672 4251.

Friday November 11
NAEA (Home Economics) one-day conference on Pre-vocational Education to be held at the Royal Horticultural Hall, Vincent Square, London SW1. Further details from Miss M Foster, Adviser for Home Economics, Shire Hall, Gloucester GL1 2TP.

Friday November 11
National Children's Bureau one-day seminar on Handwriting Today: an examination of research and its implications for the practitioner to be held at NCB, 8 Wakeley Street, London EC1V 7QE. Further details and application forms from the conference organizer, at the National Children's Bureau.

EVENTS...

Saturday October 15
Friends of the Girls' Public Day School Trust meeting at Gray Coat Hospital at 3 pm. Speaker: Miss Sylvia Watson, former director of social services, Cambridgeshire, on "A Social Worker Reminisces". Details from the Honorary Secretary, Friends of the GPDS, 26 Queen Anne's Gate, London SW1.

October 6-23
Three Decades of Inner London-Trained Artists: an exhibition devoted to the work of painters, sculptors, and printmakers who have attended Chelsea, Camberwell, Central and St Martin's art school in the Royal Academy's Diploma Galleries, Piccadilly. Admission free.

October 9-16
National Music Week: the Association for All Speech Impaired Children celebrates 15 years of achievements. Details of events in

London and the regions from AFASIC, 357 Central Markets, Smithfield, London EC4.

The Council Educational Technology for the United Kingdom is holding a national essay competition for the Brynmor Jones Prize of £400 designed to encourage younger people with innovative ideas in educational technology. Students and professionals in the field of education and training may choose from the following topics: the development of open learning; possibilities and constraints; learning strategies for human productivity; objections to educational technology. Closing date for registration January 6 1984; for entries March 31 1984. Full details from Jan Wright, CET, 3 Devonshire Street, London W1N 2BA.

Looka Natural - a project organized by the World Wildlife Fund and the National Association of Arts Advisors to encourage school children to look at art and nature. School children aged 7 to 19 are eligible and 10 prizes of art material worth £200 will be awarded to schools producing best examples of art work. Further details from Ivan Hattigh, World Wildlife Fund, 11-13 Oxford Road, Godalming, Surrey. Judging will be in January.

General Dental Council Computerized Competition. Children aged between 12 and 18 may enter either individually or in groups of classes. They are asked either to write a computer program on dental health or to use a computer to undertake a survey of dental health or knowledge about dental care. Full details from district dental officers or the General Dental Council, 37 Wimpole Street, London W1M 8DQ. Closing date for registration November 1; for entries March 30, 1984.

RECENT PUBLICATIONS...

Public Library Spending in England and Wales details the decline in expenditure on books in public libraries and discusses the implications for schoolchildren and students. The pamphlet, which is free, can be obtained by sending a large SAE to the

National Book League, Book House, 61st Hill, London SW18 2DZ. Tel 01-870 9001. **Chirbright**, a new monthly publication, provides practical help and information for those concerned with children's rights and representation. It will cover news and comment on law and policy affecting young people and includes a bi-monthly practical section for use with young people on the rights. It is available on subscription to the Children's Legal Centre, 28 Connaught Terrace, London N1 2UN. Tel 01-365 5392.

INFORMATION WANTED...

Leadership Training. A survey into leadership training for headteachers and their deputies is being conducted by Harewood. Please contact him at Kable College, Oxford if you are conducting or have conducted such courses and can provide details on course content and a programme of events.

Mathematics Teaching. The National Foundation for Educational Research is undertaking a national review of current practices in secondary schools in assessing lower-attainers in mathematics. The research team wishes to contact those who have been involved in developing or using any forms of assessment of these pupils. If you have relevant information please get in touch with Maura Leamy-Callaghan, NFER, Upton Park, Slough, Berkshire SL1 2DQ.

Indian Music in Education. A Birmingham teacher undertaking a one-year research fellowship at London University School of Oriental and African Studies seeks contact with people who have knowledge and experience in the field, including teachers who have developed their own approach and materials, performers and observers who have experience of Indian music for young people. Please contact Mr Richard Ross, 286 Franklin Road, King's Norton, Birmingham B30 1NE. Tel 021-459 6561.

Contributions for Noticeboard should be sent to Mary Crickshaw, The Times Educational Supplement, Priority House, 3 John's Lane, London EC1M 4BB. Tel 01-3000 ext 279.

Mark Jackson reports from the Institute of Careers Officers conference

Ministers set YTS test for future of careers service

The careers service is now on trial. Ministers are willing to see how it handles the Youth Training Scheme before considering whether it should continue to exist as an independent service run by the local education authorities.

This was the message that members of the Institute of Careers Officers took back to their departments this week from their annual conference at Eastbourne.

It came from Mr Peter Morrison, Minister of State at the Department of Employment, who made it plain that ministers were determined to bring to heel the service which has frequently been criticized by Government politicians.

The future role, organization and control of the service, and whether it should continue to exist separately from the Manpower Services Commission's employment services with which it overlaps, have been in question since Sir Derek Rayner, then the Government's efficiency advisor, recommended an inquiry.

Mr Morrison told the conference: "Ministers are waiting to evaluate the Youth Training Scheme and the performance of the service before deciding whether to embark on the review, which they will not be able to do before the end of the year."

There is no point in blaming unpopular policies and decisions on the Department of Employment's careers service branch, who are acting on the orders of ministers determined to change their political will.

Mr Morrison has not decided whether to retain the National Advisory Council - which has not met for 14 months - through which ministers have consulted the service in the past.

Careers Diary

by Brian Heap

With university applications well under way it is vital to note that some of the careers advice given by the UCCA is being discontinued even though they are listed in the UCCA Yearbook. These include certain history courses at Bristol (6900/89UD and 1800) engineering design and two chemistry courses at Brunel (1301 and 3420) and also banking and finance at Heriot-Watt.

All of some courses in operational research and management (4050, 4051 and 4052) are affected and also two chemistry courses (3415 and 3420). Courses in Dutch archaeology, geology and psychology are being withdrawn at Bedford College and some biological science courses at Brunel involving botany, zoology and physiology.

Finally, at Queens Mary College, London, the following courses are being discontinued: BSc in Psychology, BSc in Psychology and BSc in Psychology and Sociology.

TVEI is not an attack on comprehensives — Young

The Training and Vocational Education Initiative is not an attack on the principles of comprehensive education, Mr David Young, chairman of the Manpower Services Commission, told the conference.

But he believed that the educational system had taken the wrong road since the early sixties and that in far too many cases "we have modelled comprehensives on the grammar schools and ended up with a wistful-wistful version of them."

By adding vocational and technical courses to general education within the school, not substituting them for it, he hoped they would end up with better-

motivated and better educated young people.

Mr David Morgan, a Sheffield councillor, warned the conference that they were witnessing a very clever attack on education which was claiming that the process of education, as such, was wrong and indefensible.

"We are being led by words like flexible and adaptable to acquiesce in accepting training as a substitute for education when what is meant is getting the young to adapt to unemployment, de-skilling and low grade work. It is a deception which destroys the educational system and changes our relationship altogether with young people."

Education is not indefensible and we must stand up and defend it."

Mr Young did not rise to that challenge but he replied angrily to accusations that he was not resisting the Government's attempt to force youngsters into the YTS by threatening to cut their supplementary benefit.

He said: "I resent people who go around talking about compulsion and encouraging young people to defy authority. Nobody likes discipline and having to make the effort to learn. But by God, if you don't instill this into your children, then they will have problems in the years to come."

Marked rift over courses ban

There is now a clear rift between Mr David Young and Mr Peter Morrison over the minister's attempt to order colleges and training bodies to cut all social education out of their courses for YTS trainees.

It became public during the conference, when Mr Young denied emphatically that the Manpower Services Commission had any part in putting forward the idea.

It was a request from Mr Morrison which would be discussed by the Youth Training Board. "And I hope it will take a commonsense view," he added.

"I would be very surprised if anything happens which will stop political discussion." There were already adequate rules to prevent abuse, which the commission would enforce. "That doesn't mean you should not have free discussion of things outside work, like the work of the unions and the political parties."

But Mr Morrison told *The TES* that he stood by his earlier statements that the YTS must be about training. He would be surprised and uncomfortable at the extent of the opposition to his move.

Although he told the MSC to put his instruction into effect as quickly as possible, he now says that he will take into account the comments of the Youth Training Board.

Asked whether he had intended his instruction to apply to all social education, including the kind which is part of some school syllabuses and is part of the YTS recommendations of the further education unit, he said that has not been "in my sights". But he repeated that he thought the YTS should stick to training.

Schooldays

To be sure and secure — Book Schooldays!
"Most impressed by efficient organisation and attention to detail"



Dear Party Leader,
Efficient organisation and attention to detail — that's the high standard I have set myself with Schooldays and I promise you no less. I have listed below some of our offers for 1984.

- * COMPETITIVE PRICES — FROM £37
- * LUXURY COACHES — ONLY THE BEST
- * GUARANTEED PRICES — NO HIDDEN EXTRAS
- * FREE TRAVEL BAG & PUPILS
- * SOUVENIR ITINERARY
- * INSPECTION VISITS TO GERMANY & SPAIN
- * SPECIAL OFFERS IN SPAIN, AUSTRIA, HOLLAND, GERMANY, PARIS & SCANDINAVIA
- * REGIONAL FLIGHTS TO MAJORCA & SWEDEN

What other school operator can boast staff speaking French, German, Spanish, Italian, Greek, Dutch, Swedish, Czech and Russian! We can — and we are part of Global, a national holiday company with over 35 years' experience in travel. So come with Schooldays in 1984 — we know our way around Europe.

Vivienne Pratt

Vivienne Pratt

Schooldays

Post this coupon now to:
200 Tottenham Court Road, London W1P 0JP.
Tel: 01-580 6968 or 01-637 3333

NAME _____
SCHOOL _____
ADDRESS _____
from
Global
ATOL 343. Atol holder Global of London (Tours & Travel) Ltd

Schools do not need 'trendy new subjects' — Beloff

by Nick Wood

Schools seeking to keep pace with social change should beware of time-wasting trendy new subjects culled from the passing fancies of the media, a leading Conservative thinker on education policy said last week.

Lord Beloff, chairman of the manifesto policy group at the time of the last election, appealed for a cautious approach to curriculum reform at the University of Liverpool's annual education conference.

Schools should resist the "instinct to take the morning's headlines and try to translate them into demands upon the curriculum".

He parodied the methods adopted by such progressives: "The outlook for the economy is gloomy, let us teach children economics; there are threats of war, let us find room for 'peace studies'; our society has become multicultural, let us devote time to minority cultures; marriage and the family unit appear to be under strain, let us teach them about sex."

"The list is endless — the consequences for the curriculum, a time-table's nightmare."

Instead, people should recognize the tremendous difficulties of predicting the future shape of society and of identifying current trends of enduring significance. Karl Marx had got it wrong and there was little reason to

suppose the pundits of today would any more successful.

Such crystal ball-gazing should be replaced by attempts to define the constants in society, the need to prepare for a working life of the same length as today, the need to produce people with the variety of skills demanded by an increasingly sophisticated economy, and the need to turn out people with a social and written grasp of language.

Winking out the key elements of change was a far more important matter, he said. "It may be important to foresee the precise skills that the next century or the impact of these changes on social arrangements."

In the face of such "necessities", talents, some new-fangled curriculum, was not the remedy, Lord Beloff said. Rather, he was led back to the neglected subject of history, in particular social and economic history, which offered the best hope of giving people an awareness of the world they would enter.

He was supported by Mr David Maland, high master of Manchester Grammar School, who urged teachers to repudiate the "well-trodden but ill-conceived curriculum" to educate children in social change.

Books scheme reprieved

An aid scheme which provides cheap British textbooks to students in 80 developing countries has survived a second scrutiny by the Government.

Mr Timothy Ralston, Minister for Overseas Development, has announced the continuation of the English Language Books Scheme following a review by a team headed by Mr Walter Etkin, professor of economics at Brunel University (TES, February 25).

Mr Ralston said that the British Coun-

Buy 52 weeks and we'll give you the four seasons free

Take out a year's subscription to the Times Educational Supplement and we will also send you, free, four very attractive project kits. These kits entitled 'Nature's Year' contain twelve ideas for each season (ie, 48 ideas in total) and accompanying teacher's notes. Excellently photographed and carefully chosen by Acorn Media the sets show how animals, plants and birds respond to seasonal changes including mating, migration and hibernation; ideas for "follow-up" project work are included. Although prepared for primary and middle schools, the sets have a wider application and teachers of remedial and non-examination classes in secondary schools will find them useful and effective. The recommended retail price for the four kits is £18.00.

Educational Supplement

Simply complete the coupon below and send it together with your cheque or postal order for £30.00 to the address shown. This offer applies to new subscribers in the UK only.

Please send me a year's subscription to The Times Educational Supplement and also the four FREE project kits. I enclose my cheque for £30.00. (Cheques made payable to Times Newspapers) Please send to:

Name _____

Address _____

Signature _____ Date _____

Please send this coupon with your cheque to FRANCES JONES, The Times Educational Supplement, Priority House, St John's Lane, London EC1M 4BB.

OVERSEAS

Catechism and a bitter schism

SPAIN

James Connell on a smouldering Church-state feud.

The deteriorating relations between the Spanish Roman Catholic Church hierarchy and the Socialist state may be approaching breaking point after the Government ordered the withdrawal of 200,000 catechisms from circulation in public and private schools.

The mini Church-state war started even before the Socialist victory in last year's general election, when religious teaching shrouded anti-leftist propaganda. The Socialists have never forgiven that.

The uneasy relations with the administration turned sour over the Church's teaching on the controversial divorce law, and on the as yet unpassed abortion laws.

The new catechisms were printed and put into distribution by the Church authorities in June without official permission from the Ministry of Education.

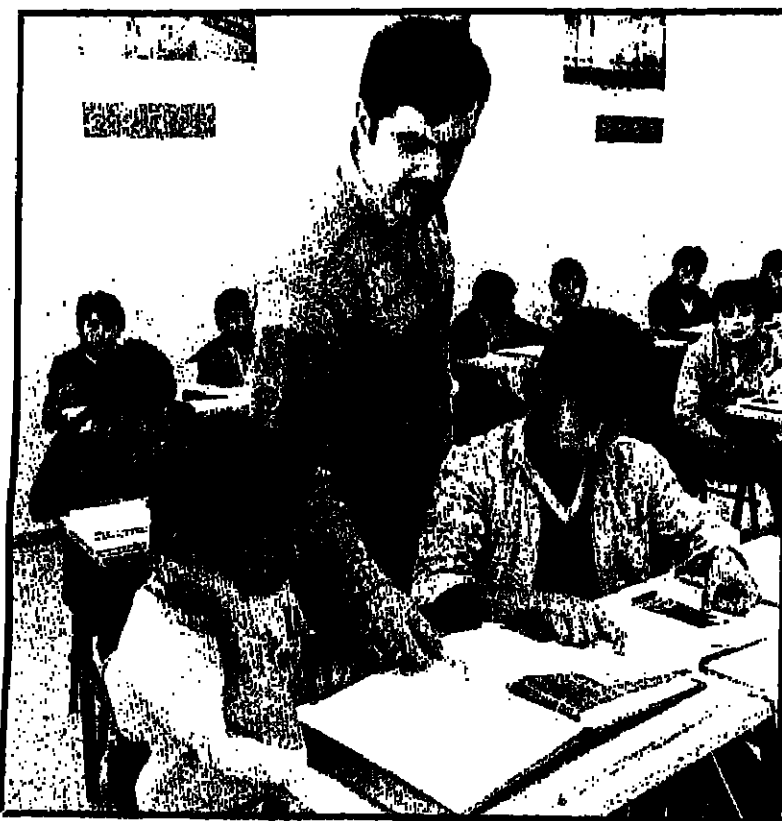
No textbook may be used in private or public schools without going through a complicated vetting system, centralized in the ministry.

After lengthy examination, textbooks are frequently returned to the prospective publisher with "observations", which entail an obligatory text change, or "suggestions", which underline didactic policy.

The approval is often tardy in view of editorial deadlines, and in the case of the catechisms, Church authorities claim that they submitted them in May this year, but, in the absence of a reply, were forced to print to have them available for the new course in September.

The catechisms involved are for the fifth and sixth-year primary courses and include not only bare statements of Church doctrine but ample interpretation and orientation.

The chapters relating to abortion in the revised versions have been streng-



Disobedience could cause staff to be heavily fined.

thened and compare the gravity of the offence to terrorism and unjust wars.

This text is apparently the straw that broke the back of the Socialist camel, and with legislation pending on the subject, is considered to be a direct challenge to the civil administration.

Since the restoration of democracy, Spanish governments have been trying to oust the Church from its previously entrenched position in public life and draw a line as to its legal jurisdiction.

The Socialist's attempts to create a purely lay state have met fierce opposition from religious quarters, especially in matters affecting education, where the Church still has a 30 per cent share of the school sector.

Church spokesmen claim that a

state-Vatican Concordat entrusts them with exclusive rights in the design and implementation of religious education and related textbooks.

Nevertheless, a previous government order of 1980 dictated that religious school books should pass through a double filter, that of the episcopal and the government office, and the definitive one should be that of the state.

The recent government circular withdrawing the controversial catechisms is unlikely to be the last salvo. In a statement, Church spokesmen made veiled references questioning the legality of the order before withdrawing the offending catechism.

Education officials have also made it

equally clear that disobedience could involve fines ranging from £500 to £1,500 plus the withholding of subsidies which, in the case of the private Church-influenced schools, would mean closure.

State schools, where religious education is optional and depends on parental consent, are certain to toe the ministerial line.

State sources, in any case, have tried to play down the importance of the measure, emphasizing the purely didactic inaccuracies of the catechism's teachings on abortion, and have promised to set up clear Church-state communication channels to avoid future misunderstandings. Nevertheless, the highly vocal Federation of Religious Teachers has urged schools to go on using the new text, despite any imposition the Government may impose. Radical left wing trade unions have supported the government stand in the catechism war, while the conservative opposition has deplored state intervention in religious education.

Some observers think that the catechism controversy has been subtly manipulated by religious pressure groups to add fuel to the impassioned discussions about the Right to Education Bill.

This Bill, regulating the flow of cash to both state and private schools, leans heavily in favour of the former and is seen by irate clerics as an attempt to strangle the private schools by starving them of state grants.

The attitude of the religious educators is that to offer a true "freedom of choice" policy, the private and religious schools should be financed by public money – an argument directly opposite to Socialist thinking.

The Bill, now being debated in Parliament, is meeting enormous opposition, not only from the religious lobby, but also from the autonomous Basque and Catalan regions, who want more educational home rule and more money to implement it.

In an attempt to save the disintegrating Church-state relations, Señor Felipe Gonzalez, the Prime Minister, will meet the Pope when he visits Spain next month.

A new look budget where parents pay

NETHERLANDS

Lynn George on fees areas of special attention.

Next year parents of Dutch school children will have to pay tested school fees, it was announced last week.

The move, which was agreed (TES, September 16), will result in saving of 140 million guilders (10.5 million pounds) for the Government.

The Government is seeking a 350m guilders from the 2.5 billion guilders education budget and to trim students' grants (22.4 billion), scrap non-examination in the top classes of secondary (21.8m guilders) and cut back on school buildings and insularities (guilders).

From the 176.3m guilders in policies, 50m, is destined for the short professional training in secondary education. The new schools for primary school and education for minority groups also given a helping hand (5m guilders extra, respectively).

Four major areas examined attention in the coming year are education, computer, and tagged children.

In adult education preferences given to paid educational but unskilled workers. No money is made available for educational but 50,000 workers a year will study on full pay for performance from one month to a year in jeopardizing their jobs.

This can be achieved by them temporarily with long-term employed workers who will work for their unemployment benefit. It is hoped that the gain will increase their chances on the labour market.

The Government is also considering providing child care facilities for mothers and housewives on security who wish to participate in adult education of some sort.

Measuring the cost of living in terms of child mortality

UNITED STATES

Sally Reed on why new life styles have resulted in new ways of dying for the young.

Recent changes in the American life-style, including family structure, eating, and sexual mores and values, are posing new threats to the nation's children.

Infant mortality rates are rising in many urban areas of the United States, and are higher in some cities than in Honduras, the poorest nation in Central America.

Immunization rates for pre-schoolers have gone down each year since 1978 with over half of inner city and minority children receiving no polio vaccine.

Medical researchers also report an increase in growth failure among small children because of malnutrition and starvation. One pregnant mother in 20 gets little or no prenatal care. One million children a year are abused, 1,000 a year die as a result.

These alarming statistics were quoted by speakers at the first national conference on the "Impact of lifestyles on child and adolescent health problems" co-sponsored by the American Medical Association and the Illinois and Chicago medical societies.

One point that was repeatedly stressed was that social and medical problems were inter-related. The increasing use of alcohol and marijuana by teenagers had, for example, led to more fatal road accidents involving young people.

Professor Edward Hughes, of the Northwestern University Medical School, said that one baby in five born to teenage mothers dies owing to lack of prenatal care.

And Ms Wendy Baldwin, from the National Institute of Child Health and Human Development, Maryland,

stated that one million teenage girls a year are getting pregnant – largely due to ignorance and lack of sex education.

"Half of the teenagers arriving at family planning clinics are already pregnant," she said, "And they are getting pregnant earlier than in previous generations."

Another speaker, Dr Charles Johnson, of the Children's Hospital, Columbus, Ohio, attributed the link between child abuse and teenage parents to the fact that most teenage pregnancies are unwanted and that teenagers know little about child development and health.

A survey he had conducted among senior high school pupils in Iowa had revealed that they thought a baby could be toilet-trained by six months and know the difference between right and wrong at 52 weeks. For many teenagers, the information about child rearing came from television programmes and the unrealistic expectations they created led to frustration and, ultimately, to abuse.



Most teenage pregnancies unwanted.

Starting the day right

A good breakfast improves a child's mathematics, according to a survey carried out in Sweden by a British researcher, Mr David Wynn.

Mr Wynn's findings are based on a survey of children aged 10 and 11 in the poorest city of Gävle. Eighty children in four classes took part in the two-week experiment, without realizing they were guinea pigs.

During the first week, the children were given breakfasts lacking in protein; the second week, nourishing meals. Teachers who observed the children during the two weeks were asked what they had been given for breakfast.

Children who had been given a satisfying breakfast for a week had 40 per cent fewer mistakes in maths and spelling, and 35 per cent higher marks for essays and fantasy than their colleagues who had been given a poor breakfast, said Mr Wynn.

Christopher Mosey

Kenya has won this year's \$5,000 award from the United States-based International Reading Association.

In 1978, President Daniel arap Moi had awarded every adult Kenyan to be literate within five years. A new Department of Adult Education was created in 1979 and a campaign launched to reach the rural population.

By 1980, 100,000 adults had been taught to read and write. The British Council is now helping to set up a network of 100 groups, converged on the

OVERSEAS

Science seen to hold solution to industrial ills

CZECHOSLOVAKIA

by a special correspondent

Science for all – from kindergarten up to university – must be a major aim of education, according to Mr Milan Vondruska, Czechoslovakia's Minister of Education.

Syllabuses at all levels, he emphasized, should be "adjusted" so that science could be integrated into all educational activities. At the same time, there should be a "familiarization with the labour of manual workers" and an increase in the number of vocational training schools.

Mr Vondruska's remarks come at a significant moment in Czechoslovakian educational history. This term the 1976 reform of secondary education will be fully implemented. Under it, pupils will complete eight years of primary schooling, then have two years of secondary, either in an old-style grammar school, or in one of the new vocational secondary schools. Before 1976 only the eight years of primary schooling were compulsory.

Accordingly, press and politicians, representing both the Federal Government and the Czech and Slovak republics, have been reviewing the progress of the new system.

The Slovaks, in particular, claim that 10 years of schooling is still insufficient. The Slovak National Council wants more efforts to increase the number of young people staying on for the full four years of secondary education.

The "work familiarization" scheme, too, it appears, is drawing considerable criticism. This programme, which is a standard feature of socialist educational theory, seems particularly difficult to implement. In Bulgaria, for example, 30 much emphasis is placed on the ethical "value" of "productive work", that pupils often spend their work-practice time on meaningless routine tasks. In Czechoslovakia, on the other hand, work-training is done in the more exciting branches of industry, but many school-leavers later find that the only vacancies for them are on some dull production line.

Work-training, it is now suggested, must be adjusted so that pupils end up in a job "corresponding to the needs of the economy". Furthermore, they



The aim is to integrate science into all educational activities.

must be told firmly that this will not necessarily be in the factories where they studied.

Mr Vondruska's emphasis on science, therefore, cannot be viewed simply as a commitment to training more scientists. Since the early 1960s Czechoslovak theorists have been discussing the Marxist implications of the "scientific-technical" revolution in which "science" will replace "labour" as the ultimate producer of "value".

Sustained efforts by the Government and planners to introduce the

latest scientific and technological developments, however, still result in considerable bottlenecks. But this, it is maintained, is not the fault of the scientists, who (it is claimed) have adequate personnel and funding to carry out their tasks. Rather, it is the industrial planners, managers, foremen and workers who fail to take advantage of the new technologies.

Upgrading science in schools, Mr Vondruska apparently thinks, is the only long-term solution to the difficulty.

Travel

PEGASUS Student Travel

PEGASUS STUDENT TRAVEL PRESENTS:

- The most exciting new development in the world of school travel.
- Comprehensive educational tours to: France, Belgium, Holland, Germany, Austria, Switzerland, Italy, Spain.
- Exotic tours to Cuba and St. Lucia.
- Sports tours including summer skiing.
- Travel by luxury coach or by air.
- Fully guaranteed prices.

If you would like to learn more about Pegasus Student Travel write or call us now for a copy of our new full colour brochure.

Pegasus Student Travel
A division of Pegasus Holidays (London) Ltd
170 Victoria Street, London SW1E 5LB
Telephone: 01-828 1301/2/3
Telex: 8955794

Pegasus Student Travel is a division of Pegasus Holidays Limited, a fully bonded member of the ABTA and holder of Civil Aviation ATOL licence number 327.



Travel

NST LTD

(SCHOOL, YOUTH & ADULT GROUP TRAVEL SPECIALISTS)



GUARANTEED FIXED PRICES ARE NOW AVAILABLE FOR 1984

Book early to ensure the best selection of holidays and enjoy the benefits of a guaranteed fixed price.

Continental and UK "Schoolcoach" tours include a full coach excursion programme in the tour cost.

Reservations now being taken for 1983/4 French and German language study courses.

NST has still some availability for Autumn 1983 Continental and UK holidays.

EXCHANGE VISITS - CONCERT TOURS - ACTIVITY HOLIDAYS

Write for full details to:
N.S.T. Prospect

13-17 All Hallows Road, Blenheim, Blackpool FY2 0BR

Telephone: 0283 62825 - 10 lines

(No stamp required)

BRINGING A GROUP TO LONDON?

Daysaway Travel specialises in School party visits to London and offers the following services:

- * Accommodation in our Central London Hotels (not hostels or dormitories) from £4.85 per night.
- * Meals and lunch boxes.
- * Theatre tickets (our own agency).
- * Guides (London Tourist Board Registered).
- * Coaches (schoolage and sightseeing).
- * Free places for teachers.

Send for our brochure:

DAYSAY TRAVEL LTD.
139a PICCADILLY, LONDON W1.
01-493 3491/2

UN teams plan aid for young addicts



The UN project follows Britain's decision to spend £6m on rehabilitation

Three United Nations organizations concerned with education, health and labour are launching a joint strategy to help young drug addicts in the rich world.

The three agencies – Unesco, the World Health Organization and the International Labour Organization – have been brought together at the initiative of Mrs Tamar Oppenheimer, the Canadian director of the UN Division of Narcotic Drugs.

The project, which has still to be worked out in detail, follows the British Government's recent decision to invest £6m in a drug addict rehabilitation programme. Other countries may well follow suit.

At a conservative estimate, the rapidly rising number of drug addicts – mainly young people – within the European Community now amounts to 200,000. This compares with about 600,000 in the United States. Growing youth unemployment and cuts in education and social welfare budgets have been blamed for the rise.

The project, which has been endorsed by the UN's Economic and Social Council and approved by the General Assembly, widens a five-year-old global policy initiated by Nordic Europe to fight drug addiction by eliminating the sources of supply.

Mrs Oppenheimer, who was a key figure in the third UN congress for the prevention of crime and treatment of offenders, explains, "Demand is an

important aspect of the complex problem of drug abuse. Unless illicit demand can be reduced, efforts to reduce illicit supply will be frustrated."

The Nordic Council, representing Denmark, Finland, Sweden and Norway as well as Iceland, declared its policy of releasing development aid funds to finance crop substitution in the opium-growing Asian countries in 1977 when their own combined population of drug addicts exceeded 10,000 mark.

Many countries, including Britain, Australia and New Zealand, joined the Nordic effort and it led to vast and initially successful projects in Thailand, Burma and elsewhere, intended to persuade peasants to switch from opium poppies to alternative crops such as coffee and kidney beans.

Since then the crises affecting Afghanistan, Pakistan and Iran have turned the Middle East into a major exporter of inexpensive, top-quality heroin which has flooded the prosperous, desperate black markets of the West.

Kenya the expansion of the Nordic initiative to confront the heroin trade both at the production and consumption fronts. "When demand is maintained," Mrs Oppenheimer comments, "the elimination of one source of supply will be offset by the emergence of others."

Thomas Land

YOU

Have you seen our BROCHURE?

Would you like our YEAR PLANNER?

Just leave your name & address with our telephone 0643 5001

wyvern travel

WYVERN TRAVEL LTD

100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774

LETTERS

Graded papers make better exams

Sir - You are quite correct to be disturbed and agitated by the proposed interventions of Sir Keith Joseph into the proposed contents of the syllabuses for the 16-plus examinations, and I fully agree with your contention that (except in very special circumstances) the contents should be decided by the boards of examiners.

However, on the matter of the method of examination, I hope you will disagree with the boards and persuade them to use different methods. At present, the only boards who have made up their minds upon a method have chosen the "petal" method. In mathematics, for example, there will be a main core Paper 1 lasting two and a half hours, compulsory for all candidates; and in addition each candidate may choose to take one

paper from the other three papers which will be easy, moderate, and difficult.

The other method which has been canvassed but which they have not chosen is the "graded" method of papers - four papers each of two and a half hours of four grades of difficulty. The two methods would look like this:

Petal method

Paper 1 for all
Paper 2 for CSE 3, 4, 5
Paper 3 for GCE "C" or CSE 1, 2
Paper 4 for GCE "A" or "B"

Graded method

Paper 1 for CSE 4, 5
Paper 2 for CSE 2, 3
Paper 3 for GCE "B" or "C"
Paper 4 for GCE "A"

The graded method is better because:

Question answered

Sir - Is it not becoming clear that the Education Secretary will soon have to decide whether or not to merge the GCE and CSE examinations in a unified 16-plus? There is now a sufficient number of GCE boards prepared to commit resources to developing graded examinations to remove the necessity for having other bodies offering assessments at stages below O level.

I doubt if parents in general would

be able to distinguish between, say, a graded test at level 5 and a CSE examination when the former is the fifth of a series of tests available to pupils at any age of secondary education prior to the 16-plus examination itself. My guess is that they will opt for the certificate with the most prestigious style of accreditation; such is human nature.

An apt question, therefore, is whether the Education Secretary will ask the Secondary Examinations Council to require the boards to submit their criteria for the emerging

Science training

Sir - I read with interest Mr David Smith's extremely encouraging article "Love at first sight" (TES, September 16) and hope that it will lead to much further discussion and development in primary science.

My involvement in science with young children has led me to realize that there exist many obstacles to the implementation of David Smith's approach. One of these is the problem that many teachers required to teach primary science have very little science training. This was brought most forcefully to mind when I was invited to speak to primary-method students at a training college, where their confidence with science work did not match the confidence shown in English, history and other curriculum areas.

We need to be continually reading articles such as David Smith's, but we also need much in-service work to help build up our confidence. Colleagues involved in science with young children also need to show a lead and help guide those of us who lack the experience.

STEPHEN WATTS
Head of Social Studies
Worsleydale Middle School
Dent Street
Blunham
Northampton

In the bank

Sir - In recent weeks, there has been some correspondence in your columns about the possibilities of teachers and lecturers being given some practical experience of business and industry.

I teach banking in Park Lane College, Leeds, and during the past 15 months I have had two periods of work experience with the Midland Bank. Last year, I had three weeks of practical experience in the Dewsbury area, where I saw the effects of the branch network reorganization of the bank. This year, I was given a place on the basic securities course, held at the training branch in Greek Street, Leeds.

Both of these periods of practical experience have proved to be of great value to me for my work, and I have been able to see some of the changes that are taking place in the banking industry.

I think that teachers and lecturers should seek every opportunity to have some practical experience of business and industry, because this experience permeates our teaching and makes us more credible to our students.

ALAN HOLME
Lecturer
Business Education Faculty
Park Lane College of Further Education, Leeds

What price culture?

Sir - Onagh McDonald's review of books on Adult Education (TES, September 16) raised some important issues, at least of which was her last: "Are we a post-industrial society? Does it require a radical re-examination of adult education?"

Adult education in Britain is in a period of transition, as is the economy. Much adult education is seen as a counter to the class-based education system of the schools, colleges and universities. Whether that was the right approach is a matter of judgment, but it is no longer appropriate.

In his seminal work, *Culture and Society 1780-1850* Raymond Williams argued that culture was the key concept of modern social, economic and political life and the key to its understanding. "The development of the word *culture* is a record of a number of these changes in our social, economic and political life, and may have itself, as a special kind of name, the means of which the nature of changes can be explored."

We may or may not be in a post-industrial society, but we are certainly living through a period of low growth after which several options are possible. The best would be a genuine "development-oriented" approach which made culture central to social and economic life. "The human soul needs actual beauty even more than bread," wrote D. H. Lawrence. When culture is central to our outlook a new map will be possible.

Get it in writing...

Sir - There is a serious flaw in the system for entry to universities, or at least in the way one university handles its entries.

My daughter applied for university entry this autumn, hoping to do medicine, and like many other hopefuls failed to reach the levels required, and failed to receive an offer from the University of Aston. She was invited to a place in a related subject, telephone conversations with various universities at the beginning of September resulted in several offers, including in particular a place on the environmental health course at Aston. She was invited to Aston for interview, the offer was repeated at the interview on September 7, and negotiations were put under way for arrangement of the necessary sponsorship.

She considered the alternatives carefully and decided she preferred this offer. Knowing that at my own level a firm offer is regarded as binding, I then advised her to reject the offer from Aston and to accept the offer from Aston. She was informed of her choice.

Over a week later, on September 19, after she had received full details of the courses and had been offered accommodation (since she had appeared as a first year student on the departmental

list), I received a telephone call from Aston advising me that the offer had been withdrawn, at senior vice-chancellor level, since a policy decision had been taken that entrants at clearing should have A level grade totals one point higher than for the original UCCA applications, and that this would be enforced even though the department concerned regarded her as a direct entry. This was in spite of the department concerned having vacancies and being entirely happy that she was suitable.

I made vigorous protestations at the highest level of the University of Aston to which I could gain access, and was told that the department concerned had exceeded its authority and therefore the offer was invalid. After further pressure I have at last (September 26) received confirmation in writing of this decision. There is no question whatever that the original offer was not made in good faith, and it is clear that the departmental admissions officer has been overruled and his decisions are not being backed by the central administration of the university.

There are a number of points of concern but the main one is that at least in the case of Aston, it is clear that even an unconditional offer should not be relied on unless it is in writing and signed by the Registrar or an equivalent official. Even that may not be sufficient for it to be regarded as legally binding.

Cardiff has had the heart and generosity to renew the offer which my daughter had refused, but had it not, the whole course of her education could have been completely disrupted, since the number of university vacancies in appropriate courses for 1983 is vanishingly small. Indeed it is still seriously affected, for the Cardiff courses available to her do not lead to professional qualifications in environmental health.

It appears to me that for a university to renege on an offer is to strike at the foundation of the UCCA system and the credibility of the university concerned, and this concerns me greatly both as a university teacher and as a parent. It must also be of major concern to all schools advising candidates preparing for university entry.

At my own university I am sure that our world is our bond. In fact I am aware of at least one case in which a departmental office has made a firm offer by mistake, and then honoured its promise.

J. S. LITTLE
University of Bristol
School of Chemistry
Cantock's Close
Bristol

list), I received a telephone call from Aston advising me that the offer had been withdrawn, at senior vice-chancellor level, since a policy decision had been taken that entrants at clearing should have A level grade totals one point higher than for the original UCCA applications, and that this would be enforced even though the department concerned regarded her as a direct entry. This was in spite of the department concerned having vacancies and being entirely happy that she was suitable.

I made vigorous protestations at the highest level of the University of Aston to which I could gain access, and was told that the department concerned had exceeded its authority and therefore the offer was invalid. After further pressure I have at last (September 26) received confirmation in writing of this decision. There is no question whatever that the original offer was not made in good faith, and it is clear that the departmental admissions officer has been overruled and his decisions are not being backed by the central administration of the university.

There are a number of points of concern but the main one is that at least in the case of Aston, it is clear that even an unconditional offer should not be relied on unless it is in writing and signed by the Registrar or an equivalent official. Even that may not be sufficient for it to be regarded as legally binding.

Cardiff has had the heart and generosity to renew the offer which my daughter had refused, but had it not, the whole course of her education could have been completely disrupted, since the number of university vacancies in appropriate courses for 1983 is vanishingly small. Indeed it is still seriously affected, for the Cardiff courses available to her do not lead to professional qualifications in environmental health.

It appears to me that for a university to renege on an offer is to strike at the foundation of the UCCA system and the credibility of the university concerned, and this concerns me greatly both as a university teacher and as a parent. It must also be of major concern to all schools advising candidates preparing for university entry.

At my own university I am sure that our world is our bond. In fact I am aware of at least one case in which a departmental office has made a firm offer by mistake, and then honoured its promise.

J. S. LITTLE
University of Bristol
School of Chemistry
Cantock's Close
Bristol

Male models

Sir - Colin Ward in his review of Asa Briggs' *A Social History of England* (TES, September 23) suggests that Briggs begins his prehistory and ends in 1945, taking in everything in between, from the Black Death to the Black Economy. Briggs, of course, does not think this, his account is highly selective. In particular, important issues that are currently being debated within historical circles - such as the role of women in history and the power relationships between the sexes - receive hardly any attention. Indeed, women scarcely appear at all until a discussion of the suffragette movement.

The issue of the invisibility of women in academic writing is not, of course, restricted only to the discipline of history. All too often in the various educational disciplines, boys' and men's experiences have been taken as the norm. And it is these largely unwritten assumptions that must be questioned if we are to produce non-sexist discourses.

In a new Open University course, *Conflict and Change in Education: A Sociological Introduction* (E205), first due for presentation in January 1984, we have made an attempt to integrate considerations about sex and gender in some units than in others. Readers who wish to find out more about the course may contact myself or Margaret Hales.

● Suffragette leader Mrs Emmeline Pankhurst, seen under arrest in 1914, one of the few women to figure in Asa Briggs' *A Social History of England* (see Male models).



to have questions about football. I should be very interested to know the relative 'take-up' if not a compulsory question; by performance of boys and girls on such questions.

JENNIFER M. MAXWELL
134 Wentworth Road
Harborne
Birmingham

Girls and IT

Sir - I would like to make a point with reference to Carolyn O'Grady's article "New survey confirms need for girls' micro scheme" (TES, September 16).

The article states that Crofton is "one of the authorities setting up special computer projects for girls"; this is not exactly correct. The Davidson Centre in Crofton is running a project funded jointly by the Microelectronics Education Programme and the Department of Industry to produce materials for an information technology course. We hope our materials will appeal to all pupils, both boys and girls.

One member of the project team, Mrs Robin Ward, has special responsibility for girls and IT, her funding is provided by the local education authority and the Equal Opportunities Commission. She visits schools to talk to staff and parents about the problems girls might face when studying subjects such as IT and computing.

Crofton has worked closely with the BBC to produce some guidelines for teachers on girls and IT, but any materials produced as part of an IT course will be intended for all pupils avoiding stereotypes - images of any kind.

TRISHA STRONG
Project Director
Information Technology Unit
Davidson Centre
Crofton

Science experiment

Sir - The TES (September 23) reported initiatives to encourage more girls to study and work in science and technology. Much advice is now available for schools who wish to do likewise, in such reports, in the materials of the GIST project (Manchester Poly) and in the recently published Schools Council Programme 3 pamphlet, "Switched-off: The Science Education of Girls" (available from Longman's Educational, price £1.95), all of which describe possible strategies for tackling the problem.

We now need to monitor "strategies in action". If any teacher, school or i.e.a. would be interested in cooperating in a project which sets out to do this, with a view to publishing selected case studies, I should be very pleased to hear from them.

JAN HARDING
Centre for Science and Mathematics Education
Chelsea College
University of London

Work preparation

Sir - In our study of industrial training we set up to prepare slow learners for work, we are finding that some children (see Atkinson, Shone and Rees, *Special Education: Policy Practice and Social Justice*) edited by Paul and Tomlinson) but they are not attributed to us by Robin Jackson. In his recent article (TES, September 23) Jackson does us a disservice by misrepresenting our work and by suggesting the units and

"have not received an adequate or appropriate professional training"; indeed, they have a plethora of special education qualifications. Jackson claims we state there was no evaluation of trainees whereas a substantial part of the chapter discusses exactly the nature of the staff evaluations and student assessments.

Most seriously Jackson claims "The most disturbing finding was the complacent attitude of the staff, who, without ever questioning what they were doing or why they were doing it, assumed that they were providing a successful programme". What we in fact said was that studies of schemes concerned with the transition from

school to work appear to lack a questioning of the aims and objectives of the scheme. Our study attempted to draw into the open some of the implicit assumptions of such projects.

TERESA REES
University College
Cardiff

Courses

Nene College Northampton

ONE TERM FULL-TIME COURSES FOR QUALIFIED SERVING TEACHERS

SECONDARY SPECIALIST TEACHING OF MATHEMATICS (Summer 1984)

This course is intended for serving teachers currently teaching mathematics in secondary schools whose teaching is at present confined to the younger age range or lower ability groups because of their limited qualifications in mathematics.

FRENCH (Summer 1984)

An intensive mainly oral course providing an opportunity for non-specialist teachers of French, as well as specialists unfamiliar with oral method, to extend their knowledge of the language and methodology.

EDUCATING MANAGEMENT FOR HEAD TEACHERS (Spring 1985)

This course is designed for Head teachers in all types of schools who wish to explore further the problems of management in schools from both theoretical and practical viewpoints.

TEACHER FELLOWSHIP SCHOOL FOCUSED ACTION RESEARCH (Spring 1985)

The course aims to give teachers the opportunity to study and evaluate some areas of current educational interest, or a specific problem which has been agreed by the teacher and the College.

Research will include:

- Identification of the problem
- review of appropriate literature
- use of research techniques
- report writing
- dissemination

Further details, leaflets and application forms from A. C. King, In-Service Co-ordinator, Nene College, Moulton Park, Northampton NN2 7AL. Tel: 0604 710714.

UNIVERSITY OF WARWICK

Advanced Diploma in Industry and Education, 1984-85

This one-year full-time course combines substantial experience of industry and commerce, including a six month placement in a local company, together with a theoretical background of the secondary school curriculum and business organisation. Emphasis will be given to the acquisition of skills and attitudes which will assist teachers to develop local school/industry initiatives. After satisfactory completion of the course, it will be possible to study on a part-time basis in the following year, for a Higher Degree.

Details and application forms are obtainable from: Deputy Director, Institute of Education, University of Warwick, Coventry CV4 7AL. Tel: Coventry (0203) 24011, Ext. 2800.

ISTC

IN-SERVICE TRAINING COURSES at Hatfield Polytechnic

24th to 27th April, 1984

CONSTRUCTING THE CURRICULUM David Warwick
MANAGING THE CURRICULUM Margaret Shone
MANAGING PASTORAL CARE Keith Blackburn, Douglas Hamblin, Michael Marland
16-18 WHOSE CONCERN? Joyce Fogg
ONE DAY SUBJECT COURSES at EASTHAMSTEAD PARK, BERKSHIRE

Effective Tutoring - Planning Pastoral Time	26th November 1983
Course for Schools	18th November 1983
Running a Department	2nd December 1983

THE MECHANICS OF TIMETABLING John Shiloh
Easthamstead Park, Berkshire
Sharnbrook
Wetherhampton

28th-30th December 1983
25th-27th April 1984
23rd-25th July 1984

Further information from: The Secretary ISTC
25 Ashurst Road, Barnet, Herts. Tel: 01-449 5945

Guided Home Study for DEGREES, GCE and BEC

Study at home - pass first time with RSC's Complete Home Tuition Service

- Self-contained courses, regularly updated for GCE or career exams
- Fully inclusive fees - no costly, time consuming text books to buy
- Everything you need in booklets
- Learning from home - flexible, fast, easy
- Free prospectus - Enrol any time
- Timetable to suit you - Continued studies at no extra cost if you don't pass first time

FREE PROSPECTUS & ADVISORY SERVICE

Write or phone today for full details and a FREE copy of our prospectus, without obligation to you.

THE RAPID RESULTS COLLEGE

Dept. HPA5, Totton House, London SW19 4DS

01-871 7272 (9am-5pm) or 01-871 7273 (5pm-9pm)

01-871 7274 (24 hours)

CACC Accredited

Courses

UNIVERSITY OF LONDON INSTITUTE OF EDUCATION

MA in Music Education

Commencing in October each year.

Applications are invited from well-qualified and experienced Music teachers to the year part-time or one-year full-time course.

The course covers three areas of study:

- a) Educational studies with reference to Music Education: Aesthetics; Psychology of Music; Social Aspects
- b) The Music Curriculum: Curriculum theory; Historical background; Current theory and practice
- c) A dissertation in a chosen field

Further information from the Deputy Academic Registrar (Higher Degrees TES2)
University of London Institute of Education, 20 Bedford Way, London WC1H 0AL

TEACHER TRAINING COURSES

Remotely located, formerly Primary and Secondary Modern Teaching Diploma taught by "Highly Qualified Staff".

Excellence and Full-Time Courses.

Enrolment by call for prospectus.

01-483 0165, 24-hour answering machine

TO ADVERTISE YOUR COURSES AND CONFERENCES

PLEASE CONTACT JOHN LADBROOK ON 01-285 3000

London Montessori Centre

100 Victoria Street, London W1N 1UD

We're looking for academic brilliance and a robust wife...

Holding the baby

Sir - I read with great interest the article "Dear Sir" by Audrey Wootton (TES, September 23).

In the summer of 1981 I was interviewed by Miss Wootton for a post at Darwin School. One of the questions put to me in the course of that interview was: "What would you do if your child were suddenly dropped down dead?"

In view of Miss Wootton's evident concern about the "small personal slights" inflicted upon female headteachers, am I to assume that she habitually questions male applicants who are also parents as to their most likely course of action in the event of the sudden demise of their children (in most cases their wives)?

Incidentally, I have never been asked this particular question by any headmaster, and did, in fact, secure a similar post soon afterwards at a school whose headteacher (male) was more interested in my teaching ability and in my record of proven reliability, both before and after producing children, than in my domestic arrangements.

G. J. ELLIOTT
7, King St South
Birdholme
Cheshirefield
Derbyshire

Wrong sex

Sir - Audrey Wootton is not alone. More than half the letters of enquiry I get start "Dear Madam".

ROBERT WALKINGTON
Secretary to the Governors
Schools of King Edward the Sixth
Birmingham

Duty for one is toleration for the other

Sir - As a newly-appointed woman head of a large mixed London comprehensive, and working pretty long hours and having a husband and two children aged six and two, I was interested in your front page article on the early retirement of the country's only woman CEO (TES, September 23).

She doubted whether many men were yet prepared to tolerate (my italics) their wives putting in a 15-hour day.

The toleration or otherwise of women does not seem to have prevented large numbers of men taking up senior positions, enjoying very long hours. When it's the woman who is left at home with the children the world does not seem so ready to make life difficult for her.

CHRISTOPHER JOHN INCE
Bishop Gower School
De-la-beche Road
Skelby
Cumbria

FEATURES

The magnificent seven?

The glamour of the new universities has faded. Set up in the swinging sixties, the sobre seventies and austere eighties seem to have put paid to many of their innovative ideas.

Twenty years ago this month, the Robbins report recommended not only the massive expansion of higher education but also a broadening of its scope. The new universities already planned were encouraged to be different. They were to be less rigid than the older establishments, to offer new courses or to teach the old ones in new ways.

But now they seem hardly distinguishable from the others and have slipped from their position as market leaders. In Scotland too, as Alex Macleod reports (overleaf) the new universities have taken a drastic change of direction. Rick Rogers (below) visits the English seven to find out what happened.

As higher education prepares for another financial bodyblow, the pursuit of innovation seems well and truly buried. But 20 years ago they were building new universities just for that.

In those expansionist days even the University Grants Committee agreed that the existing university structure was too hidebound for any experimentation in curriculum, teaching methods or organization to have a chance of success. So, in England, seven new universities were opened between 1961 and 1965 - Sussex, York, East Anglia, Essex, Lancaster, Kent and Warwick.

Now they represent 20 per cent of the universities in England and Wales and cater for 12 per cent of all students. But it is questionable how far today's sixth-formers realize the academic mould-breaking on which these seven were originally bent. They were not born when the universities were launched and when their early progress was eagerly, and often gratuitously, charted by the media.

In the 1960s a place at Sussex was more in demand than one at Oxbridge. Now, according to a 1982 survey of 3,000 school-leavers the old cities are back on top. Essex, Sussex and East Anglia are largely out of favour; the rest of only average interest. Employers, says another more recent survey, rate the new universities at the bottom of the pecking order when it comes to recruiting graduates.

Much of that early innovation has by now been watered down or absorbed into the higher education system as a whole. The querulous cry of many new academics today is that they don't want to be different from the others. Better, of course, but not different; being different makes you vulnerable in the present climate.

It didn't used to be like that. Garoth Williams of Lancaster University says the media ballyhoo following the opening of the first new university, Sussex, made him feel for the first time that being a university don might after all be a glamorous occupation.

So what remains of the 1960s dream of creating new ways of learning among the new plateglass architecture?

The decision to build was announced long before the Robbins report, in a discreet parliamentary answer in February 1958. The energetic and forward-looking UGC chairman, Sir Keith Murray, made it clear that they wanted a major expansion of higher education, that they didn't want existing universities to become too big, and that they wanted to encourage innovation.

Local consortia of businesspeople and academics put up their bids for a university. There were conditions. The new universities had to be on a single site of at least 200 acres, have a

minimum of 3,000 students, be largely residential, with local industrial links and the support of the local community.

They would have to be largely arts and social science based followed by pure and applied sciences. From the start, heavily vocational courses were proscribed - no medicine, business studies or law.

Otherwise, they could develop as they wished in terms of curriculum, course structure, organization and teaching methods - so long as they were more innovative and democratic than existing institutions. What happened next was mainly influenced by the first vice-chancellors.

Albert Sloman, Essex's first vice-chancellor, says that at the time the challenge was to be able to measure up to the existing universities as quickly as possible academically as well as doing something new.

Michael Thompson, vice-chancellor at East Anglia since 1980 after 13 years in experimental physics at Sussex, talked of "the tremendous opportunity not just for teaching a new generation of students, but also of establishing new research bases".

Each of the seven tended to pursue their own interdisciplinary ideas on the science side. But in the arts they were, according to Thompson, "looking over other people's shoulders" - mainly over Asa Briggs' and others' shoulders at Sussex.

Asa Briggs was Sussex's second vice-chancellor but in from the start as its planning pro-vice-chancellor. It was he who spoke of new maps of learning and of subject boundaries disappearing into a general Sussex culture. At Sussex, academic staff were not allowed to meet in subject groups.

The common academic thread was the multi-disciplinary diet for students. The key was, and remains, flexibility in terms of subject choice and mix. The term "department" in the traditional sense was anathema. It was a reaction against the domination of the separate subject department of the civic universities. Instead, academics from different disciplines would be welded together to teach and research the links between subjects; things would happen at the boundaries of subjects.

The result can be confusing. Sussex and East Anglia have inter-disciplinary schools of study; Kent and Warwick equally broad faculties with subsidiary boards of studies or schools for each specific subject. Essex has five schools with 15 sub-departments. Neither York nor Lancaster has a top "faculty" layer - York has 20 small-scale boards of studies, Lancaster 42 departments.

Their significance lies more in the decision-making paths taken by each university - devolving the right to decide academic matters, enlarg-

ing the groups able to decide. Deans are elected to run schools or departments; the policy-making senates are more democratic. The idea has spread. One academic said: "You don't appreciate it now unless you'd been to the old-style civics."

In their courses, the seven set out to offer more choice, more mix and the ability to change courses with relative ease. At Lancaster, up to a third of students switch main courses. Sussex was the market leader, with York the most conventional sticking more to the single honours course.

The ability to pick and choose has put a great premium on effective counselling. Although the majority of students who go to the seven may do so because of the course flexibility they often become confused with the interdisciplinary nature of the courses. "Some are happier on a less absurdly demanding diet; they feel rushed and are made to scamp a bit," said one Sussex don.

As the rest of the system began to pick up those ideas, the new ones started to compromise - departmentalizing chemistry at East Anglia, rejigging preliminary courses at Sussex, de-integrating social sciences at York. Warwick, the newest of the seven, remains the most departmentalized of them all. At Essex, Albert Sloman, feels there has been "too much fudging of subjects". He instances Sussex, York and East Anglia as the ones with the least tendency to departmentalize but predicted that "in another 20 years there would be a move back to departments if not in name".

There is some disappointment among academics that the radical ideas have not really persisted. Some blame unrealistic expectations; some the influence of external examiners recruited from the older universities. Overall, it reflects the innate conservatism of British academics. Tony Nuttall, an English professor at Sussex, commented: "The founding fathers had foreseen change and development. But I doubt whether they foresaw the curiously obstinate persistence, through all the interdisciplinary activity, of traditional subjects."

Geoff Lockwood, Sussex's registrar, regards this conservatism as having been more damaging than the cuts in holding back the innovative fervour of the new universities. Similar comments came from Lancaster and Kent. Many academics, especially those who came late to the new seven, wanted the security of their subject, for how else could they be judged by their peers? Academic protectionism began to re-assert itself.

Roger Fowler, dean of East Anglia's School of English and American Studies, takes the complaint further: "There was an excessively academic, intellectual, hidebound, theoretical ideology at East Anglia which delayed the

introduction of vocational subjects."

In turn, both Lockwood and Fowler are convinced that the new universities are more capable of carrying out change quickly and effectively. Lockwood says Sussex is still known on stream new courses and exam times. Fowler instances the recent "transformation" of the modern languages/European history when applications went downhill.

The new universities are smaller than average in terms of students, the staff younger, and traditions less rigid. Essex is the youngest of all with a mean age for academics of 39. All seven have fewer staff over 50 than other universities.

But this means there is little scope for experiment - even before the spending cuts. Especially on the arts side, are growing together and risk creating an uncomfortable gerontocracy.

Three universities - Kent, Lancaster and Warwick - have relied on a collegiate system of Oxbridge lines to cement the interdisciplinary ideal by living as well as working with disciplines. The promise was to provide an intimate focus for academic and social life, a better foundation for staff-student relationships.

It has worked more for the students than the staff. The students have formed a strong loyalty through politics, culture and sports. There are more posts of responsibility available. The academics it has meant a lot of extra work. Isolation from subject colleagues. Said Lancaster's vice-chancellor, Philip Reynolds: "Loyalty is more to departments." It is a problem for Kent which has pursued the ideal the most vigorously, albeit within a regime of "moral paternalism" displayed since the 1960s.

There have also been problems over funding of residential building and the expense of providing for small units. That, plus the original aims of college life.

For these three, the college was the core for students. The other four don't deprive by not being collegiate with their care systems of advisers (Essex and East Anglia) and personal tutors (Sussex and Warwick). Kent, unprompted, declared Sussex had not. Sussex admits a reputation for "middle-class girls and working-class lads" - the latter coming from a higher-than-average intake from FE colleges. Lancaster too recruits well from the FE sector. York, however, has a substantial independent school intake. Only three keep a tally of the educational origins of their students:

One major disappointment has been the failure to change the pattern of student progression. Boris Ford, a Sussex professor between 1965 and 1973, complains of "far too few mature students

without the formal qualifications, and too few teenage students from outside the middle and professional classes."

Note of the universities carries out any detailed socio-economic analysis of its intake. But experiments in attracting non-typical students remain peripheral. As the competition for places has intensified and for universities to attract the brightest and the best, the new seven have felt obliged to go with the tide.

Although Geoff Lockwood, Sussex's registrar, pinpoints "the revival of the concept of the mature student" as a success for the new universities, it is now the mature student who is squeezed out. A senior spokesman for Lancaster, which has a high proportion of over 25s, argued: "Are you going to turn away students with damn good A-levels for a mature student?"

In its favour, Lancaster was the first university to agree a credit-transfer arrangement with the Open University and is developing an Open College with local input. Kent was the first to offer part-time degrees, which attract most of its mature students, and this move is being followed by the others.

Future students 1982 (over 25)

	%
East Anglia	14.2 (over 23)
Essex	13.0
Sussex	13.0 (over 23)
Warwick	12.9 (over 21)
Lancaster	10.7
York	2.8
Kent	1.0

and under 25: 8%

and under 22: 11%

A survey of school leavers in the mid-1970s by the Society for Research into Higher Education found that the new universities attracted a slightly very close to Oxbridge. Not surprisingly, many comparisons are made with Oxbridge. East Anglia was known as St John's in the Fens, Sussex as Balliol by the Sea.

One senior academic at East Anglia described the student population as "slightly upper middle class" and noted a loss of panache with the influx of more lower middle-class students. Sussex claimed to have retained its "panache"; while Kent, unprompted, declared Sussex had not.

Sussex admits a reputation for "middle-class girls and working-class lads" - the latter coming from a higher-than-average intake from FE colleges. Lancaster too recruits well from the FE sector. York, however, has a substantial independent school intake. Only three keep a tally of the educational origins of their students:

%	Sussex	York	Warwick	England & Wales
Independent	40.1	28.5	24.8	22.1
Independent	11.4	23.3	13.8	21.1
College	22.9	8.9	19.2	12.0

Two of the seven are below the national average of 41 per cent for female students: Essex at 37 per cent and Kent at 40 per cent.

All seven universities saw their flexibility over course choice and mix as the main reason for their popularity with sixth-formers. One academic said, however, that: "You wouldn't really understand just how the courses operated until you came."

Warwick and Kent receive most applications, just over 20,000. Essex, the smallest university, least with 8,000. Applications for Warwick, York and Kent are rising, those for Sussex and Lancaster are not. However, more applicants put Sussex as their first choice than Kent - 19 per cent compared with 14 per cent. York stands high at 21 per cent; East Anglia at 19.5 per cent.

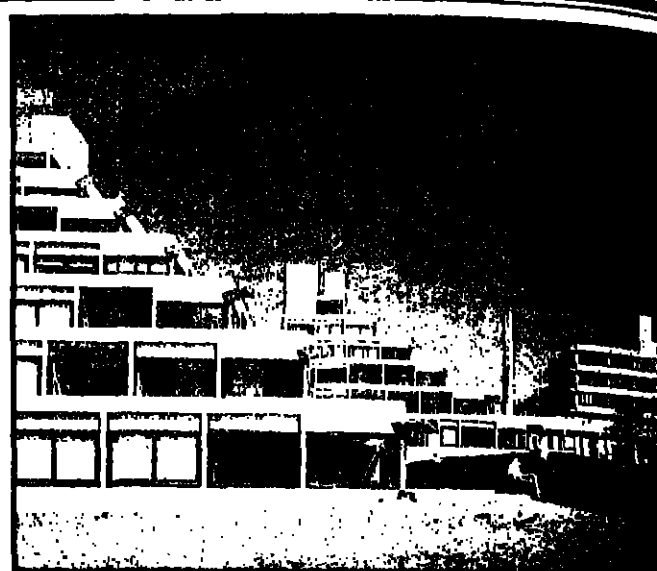
Kent acknowledges that "having lots of applications is not a test of buoyancy". All seven now aim for quality rather than quantity. Kent is trying to shake off its reputation of being a fourth or fifth choice university by demanding higher grades. Lancaster also tends not to be a first-choice university. This is put down to an original declaration about not minding where applicants put the university on the UCCA form. It is trying hard to correct that.

"Marketing is the name of the game," said one admissions officer. It is a game the new universities created. The prospectus is increasingly the main weapon. It gives an insight into how each wants to project itself to schools. Three - Essex, Lancaster and York - make no mention of being "new". Sussex ("the first of the new universities") and East Anglia both refer to having come of age, whatever that might mean in academic terms, to try to cushion the shock of the new.

York presents the most conventional and the dullest image; East Anglia the most individual. Sussex and Kent are the glossiest, combining prospectus with local travel brochure. As such, they come out remarkably similar.

The new universities have had a harder time of it because of the student unrest in the late 1960s and early 1970s. Because of more open and participatory systems of decision-making, every issue became a crisis just because it could be discussed, argued one don. The media also kept a closer watch on places like Essex and Sussex - and student activists know that.

In the public mind, the connexion still persists. All have been affected; but, of the seven, Sussex suffered most. Many schools still actively discourage sixth-formers from applying to Sussex because of its public image, ignoring the quality or appropriateness of the courses. The admissions office has a recent letter from one sixth-former who was threatened with a bad headteacher's report if she put down any of the new universities.



East Anglia: excessively academic and hidebound



Warwick: social sciences no longer integrated



Sussex: retaining the academic trappings

If it calms some heads' fears, a survey of newspaper sales to Lancaster students between 1972 and 1982 shows that sales of *The Guardian* dropped from 38 per cent to 26 per cent and *Morning Star* from 5 to 1 per cent; whereas sales of the *Daily Telegraph* rose from 5 to 15 per cent and the *Daily Mail* from 7 to 12 per cent.

Research money is one clear measure of success revealing the new universities capable of competing with the rest on their own terms. Underfunded for several years in the 1960s and without the expensive research areas of medicine and nuclear physics, research has now taken off. Sussex derives 20 per cent of its income from research funds - second only to Oxford. In terms of research income per science academic at university, Warwick and Sussex come top with York fifth, Essex is third for engineering sciences and Kent sixth for biological sciences.

Less successful are their graduate employment rates. All seven criticize the *Financial Times* league tables - Essex came top and York and Sussex bottom. York noted a 10 per cent drop in applications after its publication. With the Lancaster University research (see TES, September 16) showing that subject and sex mix account for 70 per cent of variations in graduate employment rates, the new universities fare better. The new universities' subject mix remains heavily arts and non-vocational oriented.

The siting of the seven universities still causes controversy. Former Labour higher education minister, Gerry Fowler commented recently: "Who in their right mind would site seven universities in those provincial towns today?"

It is not so fanciful. They did fill gaps in the geographical map of higher education, such as Lancaster and Norwich. Kent and Lancaster have become major employers in Canterbury and Lancaster. Valuable industrial links have been made and research geared to regional interests.

Local communities have additional cultural and educational opportunities, although these have not been exploited as fully as they could be. There is also a tendency for academics to point to the acres of parkland for the locals to use for country walks - uncomfortably like the owners of stately homes.

The potential for urban renewal was set against the ability to expand easily and on a single site. It was also difficult to acquire the UGC criterion of 200 acres in the middle of the towns. The universities themselves have mixed feelings about their location. But they seem no more nor less successful than other universities, including those based in cities, at effective "town-gown" integration.

The new universities were conceived in the 1950s and were boarded, for good and ill, by

1960s' ideas and trends. Despite generous initial funding, cutbacks in plans were already being ordered by 1967. There was considerably greater expansion in existing universities plus the development of the polytechnics and the technological universities following the 1963 Robbins report.

Infiltrating the traditional sector with innovation became that much harder. But if the new universities seem unremarkable now it is precisely because others have copied them.

By the early 1970s, all seven had been stopped in their expansionist tracks. Warwick was originally seen as a British equivalent of the American MIT with a 10,000 intake by 1980 rising to 20,000.

Subsequent developments have been slow and hard-fought. Lancaster went ahead with engineering science against UGC wishes. It added a law school just before the 1979 freeze and claims one of the largest business schools in the country. It also labels as academic breakthroughs its history and religious studies courses.

Essex, concentrating on the social sciences, highlights its linking of maths with a natural and a social science. Kent and East Anglia have both seen computing science as a "natural subject" for a new university as it has no restrictive academic traditions.

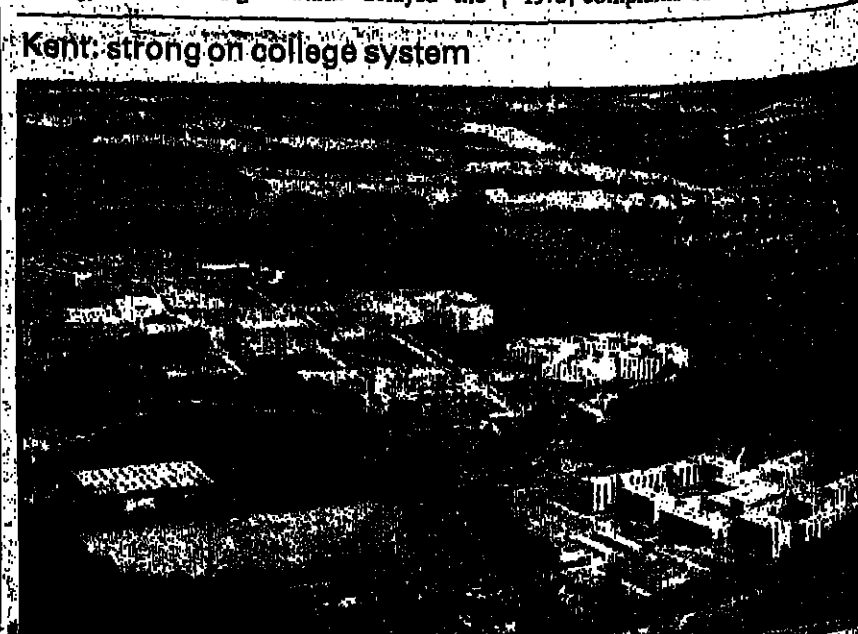
East Anglia also points to its development of environmental sciences; its fine arts and music school, and its creative writing fame around Malcolm Bradbury. Warwick boasts the largest engineering department of all the new universities, and the success of its biological sciences department - again launched without UGC blessing. York too has developed successful biological sciences and biochemistry schools. Sussex, originally famed for its unique arts courses, now pushes the achievements of its science courses with its clutch of FRSS.

To feel safe in the years ahead, the new universities are going to have to develop further their science and other vocational courses. Though no longer in the same club, the new universities are faced with the same problems. Despite the trimming, they do remain different. Tony Nuttall extravagantly described it as "education for the real world: having curiously shaped objects thrown at you from unexpected directions."

Boris Ford was more circumspect: "My own view is that these differences reside in the cultures of the places, in the relations between staff and students and between the various specialists and specialisms. At most of them the staff have far greater opportunities still to innovate, to try out new courses and styles of teaching and even examining. They may not take advantage of these opportunities, but that is another question."



Lancaster: a third switch courses



Kent: strong on college system



York: conventional and dull?



Essex: student strike meeting 1968

Scotland the brave

After a near massacre by the UGC in '81 and with their arts courses being suppressed, the new Scottish universities struggle to put on a brave face, Alex Macleod reports.

The cliché that Scottish education is "the best in the world" is beloved to Scots who have never set foot in an educational establishment since they left school. Nevertheless they could afford to feel a little sanctimonious in the mid-1960s when a new university seemed to be sprouting up every year.

Strathclyde opened for business in 1964. Heriot-Watt in Edinburgh followed in 1966 and the long-established college in Dundee received its Royal Charter and was able to start awarding degrees in its own right.

These were heady post-Robbins days. Innovation was the watchword and more than a few academics believed they were involved in a Scottish university revolution. It seemed a good idea at the time.

The older Scottish universities, Aberdeen, Glasgow, Edinburgh and St Andrews watched enviously as their younger brothers attracted most of the attention; suddenly their ancient portals and rituals did not appear quite so comforting. Was there something after all in Herold Wilson's white heat of technology?

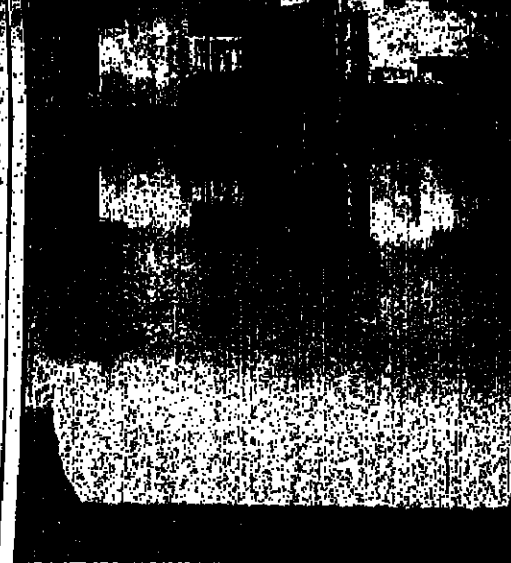
But today, it is the youngsters which are feeling the chill winds of self-doubt. They are only now recovering from the blood-letting of the University Grants Committee's 1981 cuts.

As Louis McGougan, Strathclyde University bursar, puts it: "We all had to have a plan for survival before we could start thinking about a plan for development."

Nowhere in Scotland was that more true than at Stirling University. It suffered a 25 per cent cut in funding in 1981 and there was widespread speculation that this was the overture to closure.

Certainly it has strong claims to be the most beautiful campus in Britain, standing on a saddle between the west slopes of the Ochil Hills and the woods of Abbey Craig. The university buildings nestle comfortably, hardly disturbing the scenic beauty.

But universities were not judged by scenery in 1981. Stirling was determined not to be just another university and had been given, in the 1960s, an open invitation to innovate, to be quite different. Arts and social sciences were to be its main strength.



Stirling: no prizes for beautiful campus

Stirling innovated like there was no tomorrow. The traditional three-term Scottish academic year was frowned upon and in came two 15-week American style semesters. Most students lived on the campus which had its own supermarket, post office and bus service. The campus became a village and students could combine the study of English Literature with chemistry if they so wished.

Convention was out and cutting across academic barriers was in. Examinations were replaced by continuous assessment in some departments, a concept which made some of Scotland's more entrenched academics shudder.

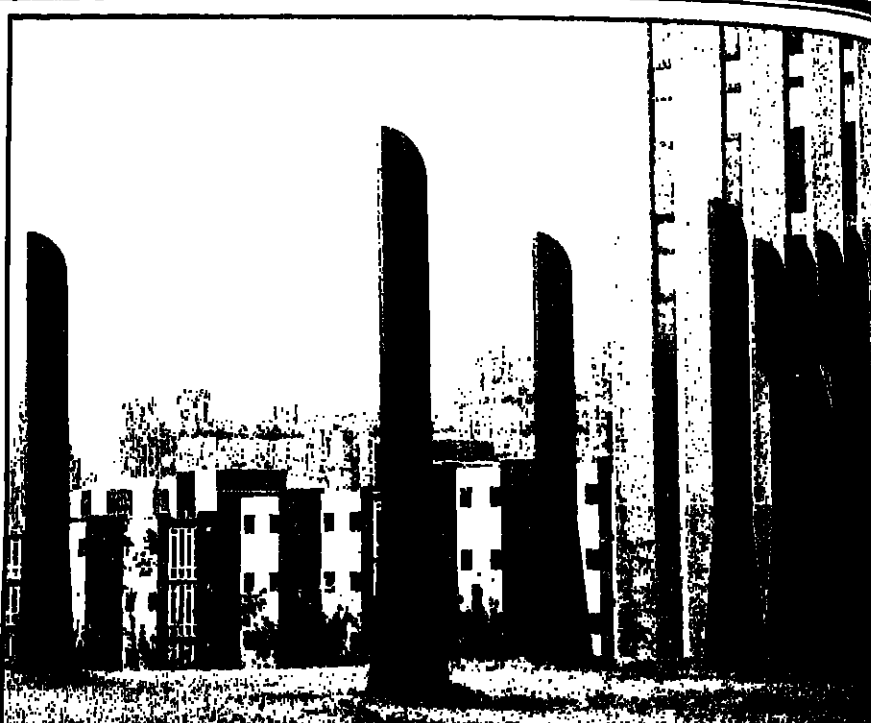
Then, one day in 1972, Stirling suffered a devastating blow. National newspapers were full of pictures showing a drunken Stirling student waving a bottle of wine at the Queen. Stirling changed overnight from being "trendy" to being "outrageous."

As James Traynor, the Deputy Principal, admits: "Those three hours of the Queen's visit made most people forget all the developments which had gone before and it came at a time when student applications were soaring."

That was bad but Stirling continued on its way, turning out sociologists, linguists and economists. Then, in 1981, the UGC pulled the plug and the university was brisily told not to mess about with such subjects - physical science was to be the priority. As more than a few academics at Stirling tried to point out, this message was a bit late in the day arriving.

Student numbers were to be cut to just over the viability level of 2,000 and even now, the university is trying desperately to shift the emphasis to please the UGC. An honours degree in physics is now on offer and there is an air at the university of trying to give a good impression: "A major Japanese computer company is in the process of setting up a factory on the campus and new courses such as information technology have been created. Staff are being re-trained to teach subjects other than their own and James Traynor feels morale is climbing again at last."

"We are very encouraged by the student application rate (10,000 this year for 600 places) and we have made judicious savings. Research money is coming in."



Strathclyde: encouraged to think big

But Professor Traynor and his colleagues are genuinely bewildered as to why Stirling was so savagely singled out two years ago. "We never received any satisfactory answers," he says.

Recently, the university received another visit from the main UGC committee. Senior academics were told there was no possibility of substantial growth in the near future. "They did stress that cuts were not intended to imply any value judgment but were part of a package to give adequate provision nationally," Professor Traynor adds.

And it is the word "adequate" that sums up Stirling's predicament. It was not a word found in the vocabulary of academics in the immediate post-Robbins years. Stirling eschewed simple "adequacy", preferring variety, change and abundance. If the university had been a little more traditional, perhaps the UGC would have found a bit more money.

Strathclyde, on the other hand, was innovative in the way the UGC wanted. It is perceived by most Scots as the technological university in Scotland, yet in the last two years 100 of its academics have been lost through early retirement.

Granted its Royal Charter in 1964, Strathclyde is the product of a merger between Royal College and Science and Technology and the Scottish College of Commerce. Strathclyde can be fairly said to have fulfilled the concept of "useful learning" expressed in its charter but Louis McGougan admits there have been disappointments.

Originally, the plan was to have a ratio of two science students to every one arts student but, 19 years later, 42 per cent of its students are taking arts courses.

"We thought that together with Glasgow University, this city could offer 20,000 student places," Louis McGougan says. "At Strathclyde, we were encouraged to think in terms of 9,000 full-time students, but that hope has not been fulfilled and it is doubtful if it will be by the end of the decade. This pleasant, nine-to-five university, sited in the centre of Glasgow has at the moment under 6,000 full-time undergraduates."

Its strengths in engineering and business studies were praised by the UGC but the university

still suffered a 15 per cent cut.

McGougan holds that the science/arts ratio is misleading, because of what he calls cross-fertilization between disciplines. "We part of the city, part of industry and we have always been deeply into commerce... this centre for industrial innovation. We have the largest business school in Europe and 50 search contracts with industry, commerce and EEC."

The cuts of '81 knocked the stuffing out of people in terms of morale. "What people lost the loss of autonomy... the thought of servants controlling what should be studied."

He admits the university will now have to preponderance of science, engineering and technology students. And the implication is there will be little room at Strathclyde for subjects which the UGC and the Government feel unnecessary.

The same goes for Heriot-Watt which lost one six millos out of Edinburgh and the other the heart of the city.

With almost 3,000 undergraduates, Heriot-Watt was badly hit by the UGC cuts - law and pharmacy in particular. However, the forefront of research into offshore engineering and is fulfilling the technological role Robbins gave the university. Professor Johnston, the principal, says: "Our subject teachers had completed their reports on time. Most had done. I spent the first half of the evening by reading 368 separate reports into 31 individual piles. In alphabetical order, of course. I then went out to the accountant to purchase six differently coloured pens - three shades of blue, Stephen and Carolyn."

However, I wrote all my own English reports on the cuts little cheques, placed them in the appropriate form boxes, waited for the deadline then with hope in my heart, carried my own form box home, praying that 4A's subject teachers had completed their reports on time. Most had done. I spent the first half of the evening by reading 368 separate reports into 31 individual piles. In alphabetical order, of course. I then went out to the accountant to purchase six differently coloured pens - three shades of blue, Stephen and Carolyn."

Horiot-Watt developed subjects like economics and a department of languages but student numbers now constrain their studies. At one time the university was said to plan for 10,000 students. "We were encouraged to think big. Then we were told to be modest," Professor Johnston recalls.

He argues that Robbins did not expect universities for their own sake. It was to attempt to create a more diversified university system. "Robbins was not unrealistic. It is sensible in trying to go for the alternative, the end, the resources were not available. Suppose that, in some ways, it is quite reasonable to force the university system to take decisions which were done in a very crude way in 1961."



Heriot-Watt: planning for fewer students

Chequebook reporting

ALISON CHILD

When the "Working Party on Reports" decided to alter the system at the large comprehensive where I work, I breathed a sigh of relief. No longer would one have to suffer the ignominy of making a mistake on the "one sheet" system, then have to spend many tedious and embarrassing moments sloping around school during the periods trying to find six other members of staff to rewrite their comments. Instead, with the new "chequebook system", one could take one's own slips home, write them in total privacy, make as many errors as one wished and amend them *ad nauseam*. One could then stroll into the staffroom and casually toss a set of perfect, dictionary checked, neatly written specimens at the form teachers. Life must surely become easier!

Little did I know! Problems arose at the next fourth-year meeting. Questions were asked. People wondered why this new system had been introduced - what was the matter with the old one? Several objections were raised. Members of the mathematics department were more perturbed. They now had to fill 72cm² of paper instead of 45cm² under the old system - they didn't feel that they knew enough words to accommodate this space.

Another protest concerned the necessity for each "cheque" to be headed with the pupil's name and form previously, the teacher had been performed by the group tutor.

"How on earth are we supposed to know how to spell their names?" demanded an artist who spends some of his time teaching.

"Look at the official form lists," suggested the head of fourth year. We should have realized then that most of the so-called "official" form lists would be wrong. Did you know that there are at least five ways to spell Daniel and the variations on Lindsey are limited, not to mention Gail, Stephen and Carolyn?

However, I wrote all my own English reports on the cuts little cheques, placed them in the appropriate form boxes, waited for the deadline then with hope in my heart, carried my own form box home, praying that 4A's subject teachers had completed their reports on time. Most had done. I spent the first half of the evening by reading 368 separate reports into 31 individual piles. In alphabetical order, of course. I then went out to the accountant to purchase six differently coloured pens - three shades of blue, Stephen and Carolyn."

Alison Child teaches at Lytham St Anne's High School.



round the statistical mean, the number of marks separating grade B from grade D is often ridiculously small. In 1982, in 25 of the 34 JMB level examinations with large entries, the number of marks separating B from D ranged from 6 per cent down to 3 per cent, and in one subject, chemistry syllabus A, the difference between B and D was under 3 per cent.

Clearly this narrowing of grade C to the point of extinction is not uncommon, otherwise the JMB would not so courageously have brought it to public attention. It must occur in unknown numbers of subjects every year and under all boards. It arises from lack of skill in the setting or marking of examinations, which allows bunching of marks rather than a reasonable spread.

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

JEAN HULL

Patricia Potts ("Talkback" 7/3, September 16) has misinterpreted or misinterpreted Robb's Jackson's article about teacher training for special needs.

However, the article nearly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and which aim to produce teachers for special schools are they presently exist - not "remedial" teachers.

Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsied child has an irreversible lifetime condition and it takes some time to learn to "hold" a defensible and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

JEAN HULL

Patricia Potts ("Talkback" 7/3, September 16) has misinterpreted or misinterpreted Robb's Jackson's article about teacher training for special needs.

However, the article nearly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and which aim to produce teachers for special schools are they presently exist - not "remedial" teachers.

Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsied child has an irreversible lifetime condition and it takes some time to learn to "hold" a defensible and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

JEAN HULL

Patricia Potts ("Talkback" 7/3, September 16) has misinterpreted or misinterpreted Robb's Jackson's article about teacher training for special needs.

However, the article nearly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and which aim to produce teachers for special schools are they presently exist - not "remedial" teachers.

Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsied child has an irreversible lifetime condition and it takes some time to learn to "hold" a defensible and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

JEAN HULL

Patricia Potts ("Talkback" 7/3, September 16) has misinterpreted or misinterpreted Robb's Jackson's article about teacher training for special needs.

However, the article nearly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and which aim to produce teachers for special schools are they presently exist - not "remedial" teachers.

Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsied child has an irreversible lifetime condition and it takes some time to learn to "hold" a defensible and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

JEAN HULL

Patricia Potts ("Talkback" 7/3, September 16) has misinterpreted or misinterpreted Robb's Jackson's article about teacher training for special needs.

However, the article nearly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and which aim to produce teachers for special schools are they presently exist - not "remedial" teachers.

Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsied child has an irreversible lifetime condition and it takes some time to learn to "hold" a defensible and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale for teachers in Toronto ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in much of this participation, a cynic sees much of this participation as a desperate attempt to become over-qualified.

For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage jobs for near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

Special teachers

100-443887-100

ARTS

Box of tricks

Tales From Hollywood. By Christopher Hampton. National (Olivier) Theatre. **Snoopy - The Musical.** By Charles M Schulz Creative Associates. Duchess Theatre. **Great And Small.** By Botho Strauss. Vaudeville Theatre. **The Tempest.** By William Shakespeare. RSC: Barbican Theatre. **Glengarry Glen Ross.** By David Mamet. National (Cottesloe) Theatre.

In *Tales From Hollywood*, Christopher Hampton's new play, the great and famous jostle one another to make their mark: Thomas and Heinrich Mann with Chico and Harpo Marx, Brecht and Helene Weigel with Tarzan and Garbo. Directed by Peter Cili with an eye to theatrical magic, kaleidoscopic scene changes exploit the stage as a box of tricks: exciting wonder and delight. The text is engagingly amusing, the acting nicely done. It is a coffee-table play: lightly literate, superficially cultural, tastefully showy. Hampton starts supposing Odón von Horvath had not died in a freak accident in Paris in 1938. Suppose he had emigrated to America, like the poet in the novel he had just begun to write, and had joined the anti-Nazi German exiles in Hollywood. What then? The possibilities are tantalizing. Can a writer develop out of his novel? Can he find a new voice with a new language? Has he a political role? A prophetic function? Bringing giants of literature, theatre and film together, the play flirts with such ideas, exploiting whatever humour they offer, tickles and teases but balks greater issues. I was left feeling that Hampton had intended something more serious which had not come off: a diet of *clairs* and *millés* *feuilles* lacks substance. Something similar could be said of

Snoopy - The Musical, a light-hearted enactment of scenes from the Peanuts strip-cartoon by seven bright and talented young people. Larry Grossman's music and Hal Hackaday's lyrics parody Jolson, the Andrews Sisters, Country and Western, *A Chorus Line* - with a smashing actions number: "Don't Be Anything Less Than Everything You Can Be". It is fun to see the familiar characters come to life in and out of school, and the all-American home-spun philosophy never palls. But is it worth the effort?

Yes, when it comes to *Great And Small*, a new play by Botho Strauss starring Glenda Jackson. Some people left after Act 1 and I was totally confused. The acting was excellent and the cast clearly committed to the play. Why? I was intrigued so I stayed. Thank goodness. Act 2's truth made all things plain. Botho and Jackson take the risk of drawing us into the increasing confusion of the principal character's descent into madness to show us a reflection of the age we live in. What was disjointed, apparently incoherent and meaningless, came together in an image of our times: Lotte the bag-lady, blissfully convinced of her destiny as one of God's 36 Elect. Keith Hack's direction, with its telling use of quiet stillness, draws from the whole cast multiple-character performances of truth and power. Leading them is Glenda Jackson in a performance of sustained brilliance from beginning (a 15 minute soliloquy in which our attention never wanders) to end: a superb actress in full control of her formidable technical and emotional range. Alas, it is due to be replaced by something less innovative and demanding. Anyone who cares about good and relevant drama, about fine acting, cannot afford to miss it.

Ron Daniels' production of *The Tempest* can be missed. It is redeemed

only by Alice Krige's performance as Miranda and Christopher Benjamin's Trinculo. A mish-mash of styles straining after novel readings, mistaking huckeyed stage-effects for artistic comment. It is a sorry mess through which Derek Jacobi postures and elocutes as a martinet Prospero. It may be that he is overdone: as who would not be essaying Benedick (splendidly), Peer Gynt (movingly) and Cynano (magnificently) all in a season? Maria Bjornson's setting, more suited to a Drury Lane pantomime of Robinson Crusoe, ill serves the text. A catalogue of the other defects would take up too much space. Give it a miss.

But don't miss *Glengarry Glen Ross*, David Mamet's new play premiered at the Cottesloe. Three conversations overheard in a Chinese restaurant occupy Act 1. They tell of a competition between real-estate salesmen for a Cadillac or the sack. Everything depends on getting the right "leads" from the office clerk. Act 2 shows us the office and the effect of the break-in to steal the leads. The language is compounded of expletives, grunts, sighs, interjections, repetitions: a miracle of life-like conversation brilliantly handled by Trevor Ray as Dave and Jack Shepherd as Richard especially. The themes of exploitation and greed, of men driven to their wits ends by business pressures, of human inhumanity, and of the turning worm - are marvelously expounded by Mamet, each one coming up new, powerful and funny. It is a triumph for director Bill Bryden, designer Hayden Griffin, and for the National Theatre. And who were there to witness it? No less than Michael Frayn, Peter Shaffer, Tom Stoppard, Arnold Wesker and Timothy West, all within feet of your reporter. Looking for tips?

John James

Repression, expression

Cinema of the Humble
C4, Monday, October 10, 11.00-12.30 p.m.

At one point in Michael Chanan's documentary, the Cuban director Julio Garcia Espinosa tells a story about an encounter with a police spy under the Batista regime. With more than a hint of self-mockery, the intellectual describes his attempt to explain the meaning of his work to a particularly obtuse representative of the government which has banned it. The anecdote unfolds, intercut with scenes from Espinosa's films, building up to its punchline. The official says to the filmmaker: "The official says to the filmmaker: 'una mlotada'." The director explains about the influence of Italian neo-realism. ("My first lecture on the subject"). The story meanders, but purposefully: this is no shaggy dog. Like Chanan's documentary itself, it is all the more effective for the oblique way in which it makes its point.

Cinema of the Humble and The Long Road (to be shown on October)

17) are intended to introduce a brief season of Latin American cinema on Channel 4. But they do more than that. By examining the way in which cinema has developed in these countries, against a background of political repression and in opposition to the slickness of the product imported from Hollywood, they raise important questions about cinema and its role in society. Their theme is the attempt by film-makers from different countries, living under different political regimes, to discover reality where others had invented or imposed it. Latin American films are among the most exciting examples of Third World cinema, and the seriousness of their purpose is in no way contradicted by the wit and intelligence with which their directors debate it.

A book, *Twenty-Five Years of the New Latin American Cinema*, edited by Michael Chanan and published jointly by the BFI and Channel 4, accompanied the season (price: £2).

Robin Buss

Drama's character

If education for 14 to 19-year-olds needs to be re-thought to meet both the present needs of industry and a future in which industrial work will have been dissolved by technology, what part should be played by drama in the new curriculum? This was the question at the heart of the National Association of Drama Advisers open course conference "Drama for Capability", at York recently. It raised, of course, all sorts of other questions, about the contradictions in the demands we make of our secondary schools, about the proper relationship of schools and society, about the role of drama in a new curriculum, and indeed what drama in schools ought to be.

Many of these views were explored in the small group meetings which made up the main activity of the conference and will form the basis of a set of papers to be published in book form. Because of the importance

attached to these meetings, the number of guest speakers was kept down, and mainly concentrated in the open day on Friday. They scattered some illuminating remarks: from Geoff Clarke, head of Shafesbury Community School, "Curriculum is the number one curriculum tool"; from Desmond Hogan, "Perception of pain is the beginning of change"; and from the staff room isolate who gets sent on conferences "much laughter from the extremely gregarious conference; and from Dorothy Heathcote - "You have to teach people so that the authentic is possible for them." "What I know is how to get at what I know", and, most pertinently for the theme of the conference, "British Gas understands what I know better than education people, perhaps we shall get out of schools to concentrate on teaching, instead of on learning."

Andrew Laski

No third dimension?

Cadbury's National Exhibition of Children's Art.
The Mall Galleries, London until October 15, then Leicester Museum and Art Gallery October 22-November 24, City Art Gallery, Stoke on Trent January 13 - February 22, City Art Gallery, Edinburgh March 2 - April 6, Walker Art Gallery, Liverpool April 13 - May 17, Laing Art Gallery, Newcastle May 25 - July 1.

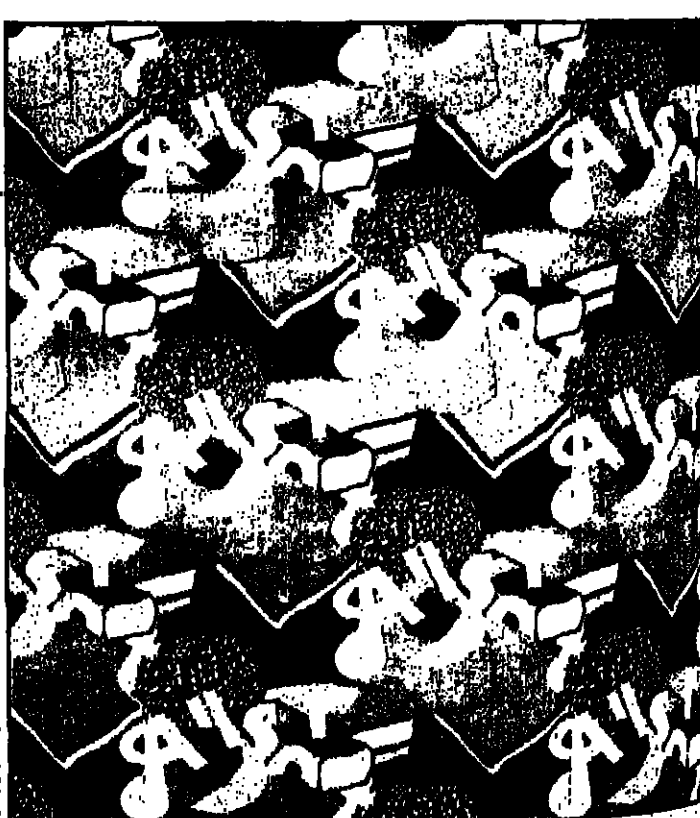
Like Wimbledon and Ascot, this annual exhibition of children's art has become a social event. Now in its thirty-fifth year, it is much younger than the Royal Academy's summer spectacular but, taking that institution as a model, Cadbury's have already sent two groups of winners on a Grand Tour of Italy and this year managed to get Princess Anne to open the show. The parallel is even closer when you notice that previous winners like Tracy McCormack continue to exhibit as if they were academicians and that in December, at the Guildhall Art Gallery, there will be a retrospective exhibition of work by her and all the others who gained awards during the last five years.

On the admission of the organisers there has been little change in the pattern of selection or presentation since the event began. Printmaking,

sculpture and the crafts are well included but despite an award for the best submission in the last category, it is still drawing and painting to dominate both in quantity and quality. Does this reflect a wider cultural prejudice or is it because most three-dimensional work is neglected in schools? It is certainly true that although there are many examples of closely observed and successfully realized work in pencil and paint, no one piece of sculpture achieves the same technical or aesthetic standards.

Standards, however, have undoubtedly changed. Only a few years ago there was a visible shift from expressive qualities of primary school children to the pursuit of realism by those in their teens and the clearly preferred it that way. This, with the possible exception of the Close, not one of the four finalists is content merely to "record". Robert Strange distorts his hands for emotive effect, the Suggen intensifies colour in a pointillist manner and Michael Jackson, preoccupied with atmospheric mood, pushes landscape to the verge of abstraction. Perhaps the Guildhall show will confirm this shift.

Michael Clark



"Liequorice Allsorts" a fabric print by 17 year-old Victoria Robinson. Hereford School, Westward Ho, Glos. Highly recommended in the section of the Cadbury exhibition.

Ear-catching

Bright green and yellow horn players herald from eye-catching new posters the Arts Council's twelfth Contemporary Music Network season which began this week with a concert by the Bloomsbury Theatre, London. Thereafter, it will give concerts in 10 venues throughout England and Wales - look out for the incredible dragon cying the long-headed trio. For equally ear-catching experiences, it will be necessary to go to one of the 150 or so concerts or educational events which will take place between now and next March.

The Contemporary Music Network features what must be the most extensive and fascinating range of new sounds to be heard in this country. Following the exotic attractions of BCO, a new Mike Gibbs Band promises to offer a hint of the African and Latin American styles which currently concern Gibbs. The eleven piece ensemble will include two guitarists and two percussionists.

Even the Nash Ensemble, that most English and eclectic of chamber music groups, is venturing both east and west in a programme that includes Constant Lambert's *Jazz Piano Concerto* and Prokofiev's *Symphonic Quintet*. Following the Nash's liberated com-

rol, comes the disciplined but two improvising groups: Alan Pownall and John Williams from Britain and Evidence from Germany. The final four of 2000 present a little of the most attractive world of electronic music. Our own West Square Ensemble, Harry Sparrow, a virtuoso on the electronic organ, will be joined by the Music Ensemble, which are interested in the electronic organ. In the first four essays, which are intended to give this volume theoretical weight, Professor Robson asks what can be expected from novels. He examines the interpretative and evaluative claims of criticism. There are at least 15 many answers to his questions and if he attempts to do his job, he will have more than a deliberative common-

the reason, an increasingly large number of schools, youth and amateur drama groups are forsaking the straight play and turning to the musical. Now at last they have a book which tells them how to do it. Peter Spencer's *Musicals* has a number of points in its favour. To start with it is a full-length book, rather than just a chapter in a volume on amateur production skills, and can therefore deal at length with subjects like auditions, rehearsals and planning. It also includes a section on the history of the musical, and a chapter on the role of the musical in schools. Whatever

The senior academics' revenge

By Christopher Price

The Attack on Higher Education. By Maurice Kogan with David Kogan. Kogan Page £3.95, 0 85038 7566.

The Kogans (uncle and nephew - ie brother and son of the publisher) have written a modern, up-to-date higher education "whodunnit". They have taken the years following the election of the Conservative government in 1979 and tried to disentangle the logic of the massive cuts which took place and discover where the responsibility for them really lay. It was not an easy task. Ministers and civil servants, suffering under rampant monetarism for the first time in their lives, simply reiterated that the policy was "expedient" - a euphemism which simply connoted a policy vacuum, linked to a general determination to cut public expenditure. In the Treasury there was a particular rationale behind it, apart from an insistence that the DES should take its "fair share" of the cuts. The DES civil servants then simply did as they were told.

Yet almost as soon as they began to be made, the cuts were being justified by ministers on quasi-educational grounds. Cutting became "good" for education. Rhodes Boyson was most eloquent on the subject. He did not believe that two A levels necessarily meant that young people were academically able; a period of consultation would do no harm; all the time he spoke to privately agreed with him. He also made a virtue out of the overseas student debacle. The outcry over these students "was a knee-jerk of the Left". "The investment (in them) seemed to be the worst we had ever made."

When William Waldegrave succeeded Boyson both the rhetoric and the substance changed. But the author makes clear that the first instinct of the real politicians in the government was to try to squeeze some populist capital out of a "minority" cause. They also point out that this was a surprising line to take. Like Maurice Kogan, both Rhodes Boyson and Margaret Thatcher were first generation scholarship youngsters in their time. Pulling up the ladder of their successors was a vindictive, and in many ways characteristic act.

While ministers and civil servants were just being good monetarists, that were the UGC too? As the Kogans make clear, the government didn't tell them how to save the money - they just said "Save it!" The UGC

were peculiarly unfitted for the tasks placed upon them. Established half a century earlier, as an Establishment organization to fund the universities with minimum fuss and zero publicity, they had never been faced with a situation like this before. Up until 1979 they had been little more than a "septic tank" (Sir John Wolfenden's phrase) in which university dirty linen could be quietly processed and dealt with. They thought about various options - a cut across the board, closing one or two universities, crowding up and reducing the "unit of resource"; one by one they rejected them. They would have had to close a lot of the weaker universities - at least five the Kogans reckon - and clearly the politics of that operation terrified them. Nobody seemed to want a generalized cut. So they opted for a complicated series of judgments of quality and availability of different subjects, which attempted to maintain the unit of resource; and that also meant cutting back on the chances of going to university for a whole three year tranche of students who were qualified and capable of doing so. This destruction of the Robbins principle is the gravest charge the Kogans level against the UGC.

The other is that they botched the operation. The whole thing was conducted in secret, to the accompaniment of promises of "consultation" - which in effect meant asking the vice chancellors and their immediate henchmen what they proposed. So judgments were made which were nonsensical and wrong, because the tiny band of academics on whom the UGC depended simply did not know enough to make those judgments. Then again they did not even take seriously the ultimate option which might have called the government's bluff - resignation en masse. Certainly Sir Edward Parkes considered resignation, but stayed on to make cuts which were "less worse" than those which the DES would otherwise have imposed. It was an understandable naivety. But the failure to be tougher with the government by at the least a serious threat of resignation probably, in the longer run, will turn out to have killed the UGC. Finally tested after half a century, it failed to deliver on the issue which was central to its whole *raison d'être*.

Yet the real wrath of the Kogans is reserved neither for the Government nor the UGC but for those reasonable clerks, the senior academics. They quote Dr Robert Brockle Hunter (now

enobled) the vice-chancellor of Birmingham, who coped less than adequately with the student unrest there in 1969: "We have earned, and in the national interest deserve, special treatment in the way of provision of staff and resources. This is elitism against the current vote-catching egalitarianism." This was Sir Robert, six years after the riots, preparing the way for Mrs Thatcher and Keith Joseph. The truth that the Kogans discern is that many senior academics actually wanted the cuts - they were each far more concerned with restoring the elite pattern of the university as they remembered it than with making provision for Britain's youngsters as Lord Robbins had said it should be provided, a course for every qualified applicant to higher education. With this sort of groundwork, it was not difficult, in the subsequent House of Lords debate, for Lords Swann, Vaizey and Beloff quietly to bury the Robbins principle on which so many high hopes had been based 20 years earlier. The cover of the book shows Sir Keith Joseph wielding a hatchet; but its message is that government ministers did not even need to do the hatchet job; senior academics did it for them. It was their revenge for 1968.

The book is a little early to finally tie up the ends of the cuts in higher education. The authors sagely point out that savings in the end were minimal because of the cost of redundancy; that "new blood" money injected after the cuts favoured Oxford and Cambridge and helped distort the whole balance of subjects; that in spite of the monetarist pretensions of the exercise, there were ideological ones as well - the Independent University of Buckingham - whose courses were of no perceptible special value to the nation - won most favoured status in the middle of the whole operation. The final message is that it was a political operation because of the cost of reduction; that "new blood" money injected after the cuts favoured Oxford and Cambridge and helped distort the whole balance of subjects; that in spite of the monetarist pretensions of the exercise, there were ideological ones as well - the Independent University of Buckingham - whose courses were of no perceptible special value to the nation - won most favoured status in the middle of the whole operation. The final message is that it was a political operation because of the cost of reduction; that "new blood" money injected after the cuts favoured Oxford and Cambridge and helped distort the whole balance of subjects; that in spite of the monetarist pretensions of the exercise, there were ideological ones as well - the Independent University of Buckingham - whose courses were of no perceptible special value to the nation - won most favoured status in the middle of the whole operation.

If there is one criticism, it is that the title is as misleading as the picture on the cover. The book is mostly about the university cuts; the university batch-up created a rather more open system for the polytechnic cuts, if no less painful. Indeed if the universities watch the present NAB exercise carefully, they could learn a lot. Some of them might even decide that since the binary system proved no protection for them, next time there is an election higher education - higher education should stand together.

Intellectual Heath-Robinsonism

The Definition of Literature and Other Essays. By W W Robson. Cambridge University Press £19.50.

Literature, it seems, is in a bad way. We might be disappointed, though not surprised, by the frequency with which writers, critics, mediators go on record as saying that European writing is "in a deep, perhaps terminal, slough". It is against this background that Professor Robson gamely sets out to justify the critic's ways to men. In the first four essays, which are intended to give this volume theoretical weight, Professor Robson asks what can be expected from novels. He examines the interpretative and evaluative claims of criticism. There are at least 15 many answers to his questions and if he attempts to do his job, he will have more than a deliberative common-

the reason, an increasingly large number of schools, youth and amateur drama groups are forsaking the straight play and turning to the musical. Now at last they have a book which tells them how to do it. Peter Spencer's *Musicals* has a number of points in its favour. To start with it is a full-length book, rather than just a chapter in a volume on amateur production skills, and can therefore deal at length with subjects like auditions, rehearsals and planning. It also includes a section on the history of the musical, and a chapter on the role of the musical in schools. Whatever

Music!

Musicals: A Guide to Amateur Production. By Peter Spencer. Kogan Page £3.95, 0 85038 7566.

The way of looking at it is to thank Tim Rice and Andrew Lloyd Webber for having popularized the rock opera; another is to accept that there is only one *Hamilton* and a finite number of *Jesus Christ Superstar*. Whatever

sense ("We cannot telephone Mollie") and plain language issues eventually in a kind of intellectual Heath-Robinsonism, that is maybe modern criticism's fault, not his. Academics, however, are unlikely to find this ingenious even-handedness provocative, and I wonder whether the broader world of reflective people for which the discourse is designed is actually out there, deciding which book to pick up next.

If it is, then I am not sure what Professor Robson wants to tell it about the literature under discussion in the next five essays. Who but an academic would relish the discovery of "political allegory" in *The Wind in the Willows* or ask: "How much stress do we put on the possible class implications of the Mole's 'Up we go!'?" We're reminded about an interesting and enchanting book, but this model critical treatment seems like a joke.

Michael BIRD

startlingly up to date, with references to the current Drury Lane production of *The Pirates of Penzance*, and on Broadway. Most importantly of all it is eminently practical: not afraid to go back to basics, never too West Endy to forget the small stationing about *Oliver* or *Rose Marie* in the local under-equipped church hall, and rounded off with an extremely comprehensive directory of shows, suppliers and services.

Hugh David



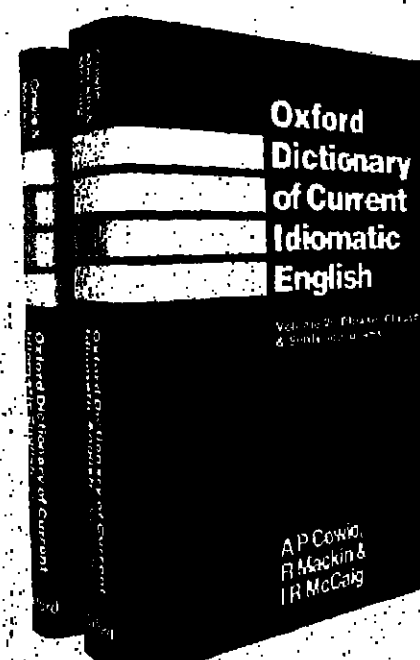
This fowling and fishing scene from the tomb of Nakht is taken from the *Penguin Guide to Ancient Egypt* by William J Murnane (£12.50 and £6.95 paperback). Traveller's companion or armchair dream-guide, it is packed with information, diagrams, photographs and maps.

Two many specialist dictionaries and reference guides are marred by a web of cross-references so complex-q.v., c.f., see above, see below that they are only likely to confuse everyone but those least likely to need such a volume, those who are already experts in the field concerned. The McGraw-Hill *Dictionary of Modern Economics* (£40.95, 07 024376 X) is, by contrast, an alphabetically-organized collection of short and separately understandable essays on the main concepts, terms and organizations of modern economics. Expensive, but a more than worthwhile purchase for any school offering economics or modern studies.

Among this week's contributors:

Christopher Price is currently overseeing policy on biotechnology at the Polytechnic of the South Bank. Colin Ward is author of *The Child and the City*. David Whitehead lectures at the University of London Institute of Education. Facts About the Arts (reviewed in *The TES* 23.9.83) is published by the Policy Studies Institute and not the Centre for Policy Studies as stated.

the greatest thing since sliced bread (catchphrase) sb/sth new, or of recent introduction, that is much admired or appreciated



NOW COMPLETE

Volume 2 published 27th October

Volume 1> Verbs with Prepositions and Particles £6.95

Volume 2> Phrase, Clause and Sentence Idioms £12.50

Oxford University Press

BOOKS

The examiners examined

Marking A-level History Syllabus A. By T. Ridd. Joint Matriculation Board Examinations Council £2.50. 0 901628 23 9.

Do A level questions test much more than the ability to produce A level answers? A cynical unworthy enquiry no doubt, but one which many A level teachers may, at one time or another, have framed. Certainly, the "model" A level answer is a highly specialized construct, and few teachers will not occasionally have resented the sizeable proportion of the limited course time available that they have found it necessary to earmark for drilling candidates in its carefully tailored requirements. However, given that no more revealing mode of testing knowledge and insight and the ability to present them effectively on paper has yet been devised, this comprehensive and helpful monograph will, in the case of at least one board, provide considerable reassurance to those with misgivings about the equity of the procedures involved.

What are examiners' major problems? First, setting - arriving at questions that lie fairly within the syllabus range, that are representative, weighty

and testing, wide-ranging without being impossibly ramifying, and - not least importantly - direct and unambiguous. Examples are given here of questions which, at their first drafting, were woefully vague, clumsy or muddled - a wooliness and fuzziness eliminated by fellow-setters' emending strictures. An account is given of the preparation of mark schemes, once the draft papers are agreed, and of the elaborate programme of coordinating and standardizing meetings that precede the examination itself. The means by which the markers' own performance is monitored by careful scrutiny and, if necessary, reassessment of a representative sample of papers marked by each one, is also surveyed. "Rogue" markers fall into various categories. There is the marker who is uniformly too severe or too lenient and whose deflection, by its very uniformity, is easily correctable by consistent readjustment up or down. There is the marker who "flattens" the entry, failing sufficiently either to reward the outstanding candidate or penalize the abysmal one. There is the marker who goes the other way and, in exhilaration at a really good answer or irritation at a really bad one, over-rewards distinction and over-penalizes incompetence.

Such errors of consistency are less easily detectable, but can still be rectified. Finally, there is the (fortunately rare) marker who is temperamentally or intellectually incapable of preserving an even standard and whose inconsistencies, though often wild, follow no discernible pattern. The only thing to do with him, once identified, poor fellow, is to get rid of him.

To strike a consistent standard of assessment, whether one is tired or fresh, depressed or elated, well or maligned, and to go on doing so, whether it is late or early in the day and, above all, whether it is one's first script or one's five-hundredth, is an exceedingly demanding task, undertaken moreover by markers mostly at a time of year when they are already pretty tired. Is it complacent to think that, on the whole, the vast majority of them do a very good job?

Most of the pages of this illuminating publication print selected answers to all the various kinds of A level history question set in recent years by the JMB. There is a great deal of most interesting matter here; and one is impressed by the exceedingly detailed care and conscientiousness of the examiners' commentaries upon the

answers, which are also printed, as by the extraordinary quality of some of the very best scripts themselves. Considering that they were planned, written and revised in probably not more than, on average, 40 minutes, some of the essays are little gems of sound judgment and inclusively compressed fact, beautifully shaped and sometimes quite stylishly composed. One trusts, for the nation's sake, that such paragons of memory and insight as their youthful authors must be already hurtling towards positions of power and influence. I'm sure the Treasury, indeed every major department of state, would benefit by the recruitment of some of them.

Sometimes, as in their commentaries on selected answers to questions on Gladstone's first administration and on the social legislation enacted by the Liberal governments of 1905-14, the examiners were, I felt, over-conscientious; and I found myself wishing that, instead of castigating, at great length, the candidates' shortcomings they had, in their obvious ability to produce a model answer themselves, ventured to do so. But perhaps this might be a bit risky!

Martin Fagg

Marking A-level Physics. By F J Bryant. Joint Matriculation Board Examinations Council £2.00 091628 24 0.

F J Bryant's book sets out to show by example how marks are allocated to A level physics papers set by the JMB. The text has a selection of 16 questions from past papers which are used to illustrate the marking process. There are 39 examples of students' answers with examiner's comments on each, together with the marks awarded. It is interesting to read Professor Bryant's justification for adhering to what marks and avoiding the halves and thirds which mark schemes often imply.

The text is best described as a diary; no schoolboy howlers here and the nearest we get to humour is a faint example from one candidate who starts his answer "Because the question must be dimensionally homogeneous (which means 'you can't add metres to 6 kilograms') - in effect, Δt must have the same dimensions as Δt^2 R (or QTI)." The examiner comments wryly "Although this last answer is littered with qualifying phrases and colloquialisms (and an occasional spelling error), it nevertheless shows very clearly that the candidate has a very good understanding of dimensions..." and goes on to award him full marks.

Texts of this kind need to be especially printed. Clearly economies were made in the selection of fonts and in layout, which have resulted in a compressed and unimpressive text. Surely it would have been worth the extra cost to put each examination question, with its marking instructions and examiner's comments, on the left hand page and to keep the facing right hand page for the students' sample answers? If this wasn't feasible then the use of a wider range of typefaces and italics to highlight the separate sections would have made the text more accessible. The introduction of the author notes at the end of the book is a pity, as is the introduction of the author notes at the end of the book. The text contains a few, very minor, misprints, which what one might expect from an examination board. However, these omissions, for example the 1990 examination paper II is quoted as the source of the first sample question, are not given.

Professor Bryant, like the authors of the A level examination, designed to test. These are knowledge, comprehension, application and evaluation, and, on a disappointing note, he goes on to say that the examination board, for example the 1990 examination paper II is quoted as the source of the first sample question, are not given.

The booklet offers a valuable guide to JMB physics teachers and will help the work involved in sifting out the teaching implications which underlie this study. I fear that many teachers will not be assiduous enough and will not more significant lessons of the need for reminding themselves of the need for candidates to produce "good work" and to avoid "careless and sloppy work". The author has produced a book which is strong on facts but, like the candidates' answers, weak on application and evaluation.

M. D. Joyce

Profitable palaces

Bricks and Beer. Heinz Gallery, Portman Square

"The Public House represents what should be the hub of our Wheel of Life, essential to our material need, and second only to the Church" wrote Sir Edwin Lutyens to Basil Oliver in 1934, and who would gainsay the architect of New Delhi and of the cathedral of Christ the King? It is doubtful of course whether he himself used pubs much, preferring the more lush, though equally convivial surroundings of the Arts Club in Dover Street.

For all the nineteenth century, and most of the twentieth, until it lost out to television and was taken over by the junior executive class, the public house was a place of refuge from the horrors of industrialization, an escape from the overcrowded misery of insular homes, a social centre where working class politics and trade union agitation could find somewhere to express themselves, a place where only a half-brotherly divided recreation from dissipation.

Bricks and Beer, the fascinating exhibition now on view at the Heinz Gallery in Portman Square (closing on October 29) sets out to document how architects reacted to the problem of designing these profitable palaces of drink. Beginning with the 1830s, when the old "respectable" taverns were being converted into gin palaces, to the horror of C. R. C. and other opponents of the demon drink, it carries on the story through public houses designed to look like Venetian palazzi, Flemish town-halls, Grecian temples, Elizabethan manor houses, Georgian stately homes or French chateaux, to the pseudo-modernism of the 1930s.

The exhibition is an enthralling record of how architects reacted to the problems presented not only by social, economic and political pressures, but by the desire, a very laudable one too, to create a more pleasant, comfortable and reassuring environment for people who needed it more than most.

Bernard Denyer

Evaluation

"The right to autonomy," says Martin Shipman, "rests on a duty to evaluate." His useful book *In-School Evaluation* has just been published in paperback by Heinemann Educational Books (£5.50). From examinations to extra-curricular activities, the whole gamut of educational aims is discussed in a lively and practical manner.

Further Education Today: a Critical

Children's literature

Menace and mischief

Funny and the Monsters. By Penelope Lively. Heinemann £5.50. 434 94888 8. Miss and Magic. Chosen and edited by Dorothy Edwards. Lutterworth Press £5.95. 7188 2537 3. A Book of Magic Adventures. By Ruth Manning-Sanders. Methuen £5.50. 416 24520 X. Tall Stories for Mr Tidyman. By Marjorie-Anne Watts. Deutsch £4.95. 233 975527

Funny and the Monsters gathers together in attractive hardcover format three books originally issued as separate paperbacks. Penelope Lively's stories are full of incident and humour, redolent with authentic detail of Victorian family life and include an encounter with the celebrated Crystal Palace dinosaurs.

Miss and Magic is an anthology which brings together a variety of writings, including some stories specially written for the collection. "Night Walk" by Dorothy Edwards herself is the first story in the book, and to my mind it is a chilling little masterpiece. "Anyhow, it was such a night-walk that I saw what I saw. It was damp that night and cold, and the mist lay in those low patches on the fields. That night my mind was as damp as the Doctor's shirts and the sheets hanging up in the outside wash-house."

Given her own inimitable touch with language, it is not surprising that the rest of the book demonstrates taste and imagination in the selection it presents. As well as stories by, among others, Ruth Tongue, Angela Pickering and Irene Halloway, there are such poems as "Full Fathom Five", Newbolt's "Clues Drowned in Olden Times" and "The Moon is Up" by N. S. Pines.

Far from shirking the darker aspects

of its subject, the anthology reveals in them, its editor clearly recognizing the central importance of scalp-prickling ingredients in creating a truly magical atmosphere. Thus do we meet the souls of babies who died before baptism ("The Spunky") and a poor boy who lays his precious halfpennies on the eyelids of a dead beggar ("Four Eggs a Penny").

Ruth Manning-Sanders, too, in *A Book of Magic Adventures*, recognizes and communicates the elusive blend of dark menace and sunny mischief to which the well-told folk and fairy tale should aspire. The stories arc all traditional and come from 12 different Northern Lands. The voice, though, is that of Ruth Manning-Sanders, and it is her skill with the genre which makes the stories succeed.

"Once upon a time there lived in Jutland a peasant, his wife and their baby son, Sven. They were so poor, so poor that the day came when they had not even enough to eat."

In an age when so much children's literature is couched in terms more laid back and suffused with grainy realism, it is important that someone should be

Christianity. By Peter Moore. Ward Lock Educational £2.95. 7062 4125 8. Christianity in the Modern World. By David Field. Hulton £2.75. 7175 0974 5.

With many of the best practitioners in the field of religious education rightly concentrating on the need to produce multi-faith teaching materials, it has become quite difficult to find acceptable books on Christianity. Indeed a number of promising series covering the world faiths at various levels have foundered disastrously when they reached the Christian volume of their series.

No such tragedy has struck *The Arts and Practices of Living Religions*, a series deftly edited by John R. Hinnels, a lecturer in comparative religion at Manchester University. Its volume *Christianity*, by Peter Moore, lives up to the generally high standard set by the earlier books in the series. It studies how Christians convey their religious experience through sacred, folk and personal art forms: in architecture and in artifacts used in worship. Through this approach, it is particularly successful at conveying the spiritual element of Christian practice and (although it limits itself to European expressions of the faith) it demonstrates the richness and diversity of Christian art.

It is written with enthusiasm but grinds no axes: it never forgets it is speaking to an audience that includes non-believers. It would be pleasant to think of it finding its way onto library shelves in non-Christian countries. It also deserves a place on every sixth form religious and general studies

David Self

Poetry for beginners

Poetry in English: An Introduction. By Charles Barber. Macmillan £12.95. 0 333 32440 4.

At a time when criticism is reaching incredible heights of sophistication about the illusionism of art, a book like Charles Barber's looks at first sight woefully conservative and elementary. However, this is partly because it belongs to a series which appears to have in mind a largely Commonwealth or "Anglophone Third World" market. Accordingly, much of the discussion of poetry over the ages is technical, descriptive, factual and interpretative in a deliberately humble way, a way that works well with "The Wife of Usher's Well", slightly less so perhaps with a subtler poem like Coleridge's "Frost at Midnight".

He is critical in a simple but effective way, as in his comparison of Wyatt and Surrey's "rival" versions of a love sonnet by Petrarch, a contest won by Wyatt on the basis of a superior submission. He provides clear guidance to poets who practised similar genres or used comparable themes or resorted to the same devices. Never afraid of the over-obvious, the result is not unintelligent, and in its unpretentious way is a pleasure to read. However, it cannot be denied that he appears sometimes to be writing for

an audience whose grip on English, never mind English poetry, is rather shaky. "English poetry", however, is unfair. The distinction between this and "poetry in English" is observed, though chauvinism is amusingly upheld in the relative-sighting of American poetry. But so much the better when American poetry is so much more knowingly oversold.

The book's authority is occasionally imperilled by the rather deliberate simplicity of someone so eager to help the anxious examinee-to-be that he virtually becomes him; a teaching pitfall to which many have succumbed, shown here, for example, in his comment on Shelley: "He believed that the perfect society would be achieved when people saw the truth and their chains just melted away". I suspect that Barber knows far more about poetry than many who would write about it with more theoretical pretension. However, there is a final objection to the idea of poetry as a transhistorical concept. Poetry as a formalist idea tends to empty the urgency and intelligence with which Wordsworth, say, did not merely address himself to the task of "being a poet", but of confronting an unprecedented era of social transformation, opportunity and peril.

Edward Neill

Junior Roget

The Word Finder. By Albert and Joan Rowe. Basil Blackwell £3.50 0 631 13201 5. £2.25 91950 3.

With any luck those senior pupils fortunate enough to be using *The Word Finder* will already be familiar with the standard Roget, at least to the extent of knowing how the book is arranged. That way they will be spared the complexities of Albert and Joan Rowe's instructional rubrics; the weakest part of this generally admirable book.

Having found their way to the index they will be on familiar ground for *The Word Finder* is a junior Roget pure and simple. Listed there are all the words included (over 7,000 apparently) together with references to the

appropriate numbered category (and there are over 800 of those) in the main part of the book. There the Rows, like the indefatigable Frenchman - but unlike the author of another recently published young people's thesaurus - have taken the bull by the horns and grouped the synonyms of each "headword" by their part of speech. Small likelihood then of any homonymic confusion; grammatical pedants can rest content (ad.); the content (n.) of *The Word Finder* is very sound. Departing from Roget, however, the authors include not just strict synonyms but also "alternatives", words of similar but not identical meaning. A baby Roget (a Rogette?) then, carefully and unashamedly tailored for school use, and valuable for exactly that reason.

Hugh David

BOOKS

Moral issues



The Bungling Ballerinas, written and illustrated by Ellen Shire, is a detective story based on the ambitions of a jealous, would-be ballerina who uses unscrupulous methods to get a chance to star. The pictures are the real joy, though, full of humour and well-observed detail. (Hamish Hamilton £4.75)

promoting the formal style of the traditional story. My own favourite in this collection is a German tale called "The White Goat", which has everything - a prince turned into a goat by a witch, a princess, a magic rhyme, enchanted fruit and a wedding, all in little more than a dozen pages.

Tall Stories for Mr Tidyman is rather more comfortable and immediate. It uses as a linking device a tall story competition between a group of friendly farm animals with Mr Tidyman the toad as auditor and adjudicator. The stories are lively and rich in description. In their own way, too, they cleave to a well-tried formula which is different from, though just as valid as, the Northern austerity captured by Ruth Manning-Sanders:

"Long ago, before any of you were born, in a dusty attic not so far from here, amongst a lot of old bits and pieces that nobody wanted, was an old plush chair."

It only works if you can do it, and Marjorie-Anne Watts most certainly can.

Gerald Haigh

Guides to Christianity

How to Read the Old Testament. By Eugene Charpentier. SCM Press £3.95. 334 02057 3.

How to Read the New Testament. By Eugene Charpentier. SCM Press £3.95. 334 02056 5.

Setting the Foundations. By Rosalyn Kendrick. Hulton £3.25. 7175 1156 1.

Investigating Jesus. By K. R. Chappell. Edward Arnold £2.50. 7131 0638 7.

Jesus: miracles, signs and wonders. By Peter Malten and Martin Pitts. Edward Arnold £1.85. 7131 0711 1.

"One can be both Christian and intelligent." That is one of the delightfully encouraging conclusions of *How to Read the Old Testament*. So many guides to Biblical study seem to imply that critical study indicates a lack of faith or that myth and history may be interpreted simply to support present religious needs.

How to Read the Old Testament and *How to Read the New Testament* are wonderfully involving, sensible, necessary books. They have been translated from the French and published here by the SCM Press. They are the work of Eugene Charpentier who, until his death in 1981, was responsible for the French Catholic Episcopate's department of publications designed to encourage Bible study. It was an imaginative appointment and I hope his post has been filled by an equally clever and honest thinker.

Charpentier is aware that Bible study can be politicized. "To follow the path of sacred history (creation, the fall of Adam, Moses)... is essentially conservative; it gives pride, joy and a sense of God's abiding presence."

lute master, creator of mankind which has only to obey him... And we can understand how an authoritarian government will find such a pattern congenial: it can make an unconscious assimilation between this God and the masters of the country." Fr Charpentier prefers to place the creation stories later in the sequence: that is, in the period in which they were compiled. He knows this pattern is subversive. "It brings to light that God is above all a God who liberates, who wants man; all men, to be free and responsible."

He compares his books to guide books to famous buildings. Like the best guides they are concise, easy to use and tempt you to spend longer than you meant discovering the secrets of the building. He provides historical and archaeological background information that will allow us to make our own deductions. He trains our methods of analysis and is happy that the scriptures be treated as secular texts. In a postscript however, he admits his own conclusions. "It seems to me that the Bible leads us to recognize that everything depends on man, that he has to shape himself, the world and history. But I praise you, God, for having made me the amazing wonder that I am."

I can recommend these two books without reservation for use with any sixth form group or for use in further education. They are also mandatory reading for Christian study groups and will be invaluable to anyone teaching the Bible to secondary RE groups of any age.

Setting the Foundations is an examination course for O level students of the synoptic gospels (Matthew, Mark and Luke). It too is refreshingly

open, clear and easy to use. Photographs illustrate the text, comprehension questions are apt and the creative writing suggestions imaginative but not eccentric. But just how will most level candidates respond to the introductory exhortation to study hard: "Chin up! Firm resolve - and forward!"

No such jolly hockey shouts intrude in *Investigating Jesus*, the layout of which suggests it is for younger or less able pupils. In fact it is rather heavier going and although the author claims the approach is one of historical investigation, the assignments often require the student merely to regurgitate a quotation and the author's assessment of it. For example, a two sentence quotation from the first century historian Josephus is followed by the question, "How was Jesus described by Josephus?" *Investigating Jesus* was perhaps designed to be objective. The result is a book which does not seem in any way necessary.

Jesus: miracles, signs and wonders is a picture book for juniors. It consists of cartoon drawings and questions which range from "What did Herod ask the wise men?" (the answer is in the speech bubble at the top of the page) to "What is sin?" (a rather more open-ended question to shy the least). However the main questions raised by the book are whether anyone ever thought of editing the text and what was the intention behind the publication of such appalling art work? Perhaps they are subtle reminders that to be a Christian you do not after all have to be intelligent.

David Self

RESOURCES/SOFTWARE

Programs from ASK
For BBC Micro, VIC-20, Dragon.
Individual cassettes £9.95, £39.95 for
all five on one disc or as a set of
cassettes
ASK, London House, 68 Upper Rich-
mond Road, London SW15 2RP.

Adults are curiously resis-
tant to the idea of very
young children using com-
puters. Teachers at
Eugene Galanter's Children's Com-
puter School in New York appar-
ently find that children have to be five or
six before they can use software. My
recent experiences with ASK soft-
ware and assorted three to six-year-
olds suggests that this is a reflection
either on their pupils or on the
software. I'd bet on the software.

ASK was set up by Tom Stonier of
Bradford University; its Consulting
Editor is Mike Thorne of University
College Cardiff. Two such promi-
nent names in the world of educa-
tional computing serve as a good intro-
duction to their software which is
designed for children in the 3 to
12-year range. Their first release of
five programs is reviewed here in the
BBC versions (Model B) but ver-
sions are available for other
machines.

Facemaker (ages 5 to 12) allows
the child to choose and build the
features of up to a million possible
faces. Starting with the eyes (large or
small?), nose (fine or bulbous?) the
program works through to ears (none,
one or two?) and a wide
choice of hats. At intermediate
stages the child can view the results
of her choices and has the opportu-
nity to vary any she wishes. This is
useful to sustain motivation: a bright
six-year-old took 25 minutes to com-
plete the program, largely because
of her total lack of previous experi-
ence of a keyboard. The program
tolerates no spelling or punctuation
mistakes at all - not necessarily a
criticism, but it did take her a lot of
hunt-and-peck to repeat "pompom"
after omitting the space be-
tween the words.

Facemaker capitalizes brilliantly
on children's tremendous natural

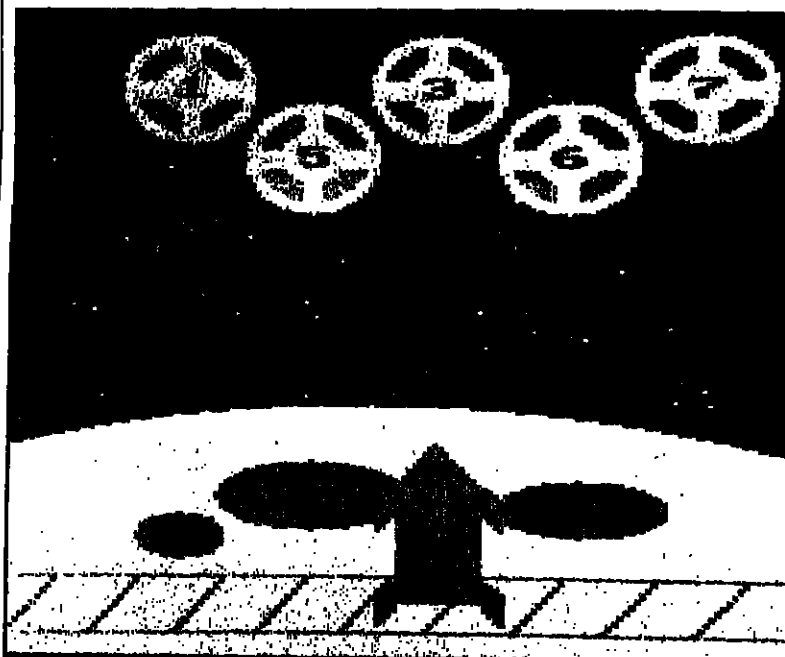


On the face of it

Jacquetta Megarry
reviews programs
for young children

interest in faces; the possibilities for
stimulating talk, questions and
humour are immense. To criticize
the crudeness of some of the
graphics or the oddities of language
would be to miss the point. My main
regret about the program is that it
was not made to appeal to a wider
age range. To use it without an older
child or adult present, a child would
need middle to upper primary levels
of reading, spelling and vocabulary
skills.

ASK's blurb claims that "great
attention is given to building 'depth'
and variety into the programs", yet
Facemaker has no provision for
varying the level of the demands it
makes on the user. Had there been



From "Facemaker" and "Space Stations". Below: from "Number Guesser".

the option of a multiple-choice mode
(as an alternative and perhaps pre-
liminary to the constructed-response
mode), younger children could have
used **Facemaker** to discover the
meaning of "bulbous" or "Tribby",
as well as enjoying face-making as a
stimulus to language work. In addi-
tion, a simple collection of default
values (or even random generation
of size and combinations of features)
could give an entertaining and cap-
tivating demonstration mode which
would appeal to toddlers or even
babies.

Let's Count, Number Puzzler and
Number Guesser are three cassettes
with different approaches to build-
ing and practising number skills.
Unlike **Facemaker**, all three contain
games at a variety of difficulty levels
(**Number Guesser** has 19). The first
two cassettes combine distinct games
on a common theme.

Let's Count was my favourite.
Four scenarios offer progressively
more challenge, with each of four
number groupings (1 to 3, 0 to 4, 5 to
9 and 0 to 9) to give a lot of depth and
variety for children from three
years upward. Secondary school re-
medial departments might be glad of
such programs.

In **Treasure Island**, the child simply
matches the number of shields on
a boat to the treasures on the islands.
It is perhaps unfortunate that a
single shield looks so much like a 0,
but this soon becomes clear. Correct
answers are celebrated with a horn-
pipe, wrong ones discouraged with a
brief raspberry. **Space Stations** gets
the child to shoot a rocket with so
many windows at a space station
carrying the corresponding numeral;
this time autocues are rewarded by
pleasing 3-D distance effects and
Star Wars music.

Kill-a-Ball is set in a bowling
alley, and numerals appear again.
This time the plates have to be
bowled in ascending order of mag-
nitude of the numeral they carry.

Which Way introduces number
comparison, with unequal sets of
coloured objects mixed up together;
they have to be carried into different
chutes according to whether there
are more blues than red, equal
numbers or less. Persistent wrong
answers produce a tidy rearrange-
ment to make the comparison more
obvious. Right answers are re-
warded by pleasing animation.

Number Guesser uses a maze-style
arcade game with fast interaction
and beguiling sound effects as a
source of motivation for practice of
the four basic operations. The child
chooses a target number and has to
guide the gulper through the maze,
choosing which numbers to gulp in
order to turn the starting number
(selected by the program) into the
target number. Excessive trial-and-
error is effectively discouraged by a
time/energy bar which expires at
different rates according to difficulty
level.

From Level 3 upward, the
dreaded scramblers appear. If they
are not avoided, the target number is
changed capriciously and further
planning is required to compensate
for this. Subtraction involving nega-
tive numbers is excluded, as is
division involving remainders. A
self-test option (with an interesting
self-imposed time limit) comple-
ments the gulper game. It tests the
analysis of expressions like $6 + 9 \div 5 + 2 = ?$ whereas the game tests
synthesis. Harder versions of the test
combine multiplication and division.
Control of the gulper would have
been easier with joysticks (catered
for by the program) than with the
ZX and *? keys. However, it is
Acorn's fault, not ASK's, that the
cursor controls don't make the best
of this with a natural cruciform.

The **Number Puzzler** cassette con-
tains five games, of which the first
three are all based on noughts and
crosses. The games are played
against either the computer or

another player, and difficulty is
controlled both by the size of num-
bers and the number of boards
played at once. The games involve
addition, subtraction or both. In
Magic Square the child has to fill in
the square so that columns, rows and
diagonals add to the same total. At
any time she can fall back on the
computer for a solution. There is
also a self-test option on this cas-
sette, which combines a variety of
palatable number drill-and-practice
routines.

Hide and Seek contains many
games which are variations on the
manic with neat sound and graphic
effects. **Find It** shows the child
pictures in six boxes and she has to
remember which went where after
they are hidden. **Seek It** was a
box and offers four games of
varying difficulty: in the last one,
the child can choose where to go
each item, so the use of different
organizing categories can help her
remember. Finally, **What's Missing?**
tests memory of which object has
been removed in two versions: one
involves reading, the other spelling.
The notes give a dictionary of words
presented (especially helpful when
the graphics are inadequate, as a
distinguishing girl from woman). The
also rightly stress the value of a
operative work on the many
games, and of integrating computer
work with other approaches.

All five cassettes share a simple
set of ASK conventions about the
use of the space bar, return and
escape keys, and teachers may be
grateful to be able to vary the speed
level (CTRL-S). The 12-page book
lets have brief educational notes as
well as guidance on loading and
using. User-modification of the
program is clearly neither encour-
aged nor encouraged. Overall, these
cassettes set an encouraging standard
both of design and presentation.

I had some loading difficulties
with most of the cassettes. Although
my cassette recorder or the re-
lease recordings may have been at
fault, I have no doubt that any
primary school which can find the
money for a disc drive will regret
the investment. ASK has
been quick to recognize the demand
for BBC software on disc. What
pity that their pricing policy does not
reflect the lower raw-material, age
and posting cost of one disc
versus five cassettes.

COMPUTERS AT WORK

VIDEO MOVIE
COMPUTER CASE STUDY

- ★ For 14 to 16-year olds
- ★ Includes teaching notes
- ★ Send for FREE Fact Sheet
- ★ Video from 8 (VHS)
- ★ Case Studies £10
- ★ Full Computer Listing
- ★ Theory, Examples
- Produced by a leading
Software House & Experts

Details from:
Mrs P. McMaster
GMS Computing Ltd
Smithfield House
Sheffield S1 2BU
0742-730181

TIMETABLING

on a 380Z

can save time and improve the
quality of your timetable

Send for details of
school administration programs to
TIMETABLE SYSTEMS
39 Somerset Road, Farnham
Surrey
Tel: 07523-53749

NEW DIGITAL SCALE

PRECISE CLEAR READ-OUT

Ideal for:
Home Economics
Physics - Science
Biology - Mailing

Featuring
Electronic speed,
digital convenience and
operation in ounces and
grams.

Battery operated
Two models

35 ozs/1000 gr by 2 gr divisions

5 lbs/2000 gr - zero - 89 gr by 1 gr

70 gr - 2000 gr by 2 gr

TAKES THE GUESSWORK OUT OF WEIGHING
ENQUIRIES FROM
KEITH BENTLEY LTD
17-20, Parr Street, London N1 7EP
Tel: 01-253 0148

GARLAND COMPUTING

35 MEAN HILL, PLYMOUTH, PL9 5AP TEL: 0762 41287

We are specialists in the publication of high-quality educational software and
have one of the largest selections of programs - all of proven educational value,
written by specialist teachers and tried and tested in schools and colleges.

BIOLOGY: Over twenty programs for secondary schools, colleges and universities. New titles
include: Population Genetics, Human Blood Groups, Chromosomes Mapping and Photomicrographs.
(BBC)

PHYSICS: New titles include: Field Line Simulation, Thermal Equilibrium in a Boltzmann Gas, Brownian
Motion and Diffusion. (BBC)

MATHS: We are adding to our highly successful Learning Maths programs for Ages 8-12 with three
new packages - Set, Elementary Statistics and Ratio. Titles for older pupils - Graph Plotting and
Calculus. (BBC)

CHEMISTRY: New releases include: Titration and Identification and Properties of Elements and
Compounds. (BBC)

FRENCH: A series of programs to help learn French, including Paris Trip, French Shopping and La
Cuisine - an all-French adventure game. (Spectra, Spectrum)

MUSIC: Our Music Tutor program can be used in the classroom to help children learn or create
music. (BBC)

Programs are available by direct mail order through educational suppliers, and by selected
computer stores. Please send for full details of our latest titles and prices.

THE EDUCATIONAL SOFTWARE SPECIALISTS

RESOURCES/SOFTWARE

Ballooning
Car Journey
Special Agent
Punctuation Pete
Heinemann/Five Ways for the Spec-
trum.
RRP £9.95 each.

Heinemann's ingenious
attempt to sell their educa-
tional software to both pa-
rents and teachers raises in-
teresting questions about differences
in what might attract and motivate
children at school, and children at
home. All four of these programs are
more imaginative and sophisticated
than most of the skills and drills stuff
on sale to worried parents in W H
Smith.

For home consumption, the pro-
grams run on the Spectrum, and come
with large colourful booklets. For
schools they're designed for BBC and
RM 480Z machines, and come with
more extensive and open-ended
teachers notes. (The schools series will
be reviewed separately.) No doubt
keen Spectrum owners will be happy to
put up with the limitations of the
screen display - but in **Special Agent**
some essential information appeared
in barely legible form.

The booklets combine standard in-
formation book stuff on roads, or
spies, or balloons through the ages
with information and activities linked
to the programs. The actual instruc-
tions on how to run the programs are
too compressed, and often confusing.
Keyboard overlays, showing which
keycodes what, are helpful - though the
one for **Punctuation Pete** labels two
keys wrongly (the booklet is wrong on
another two).

Once the programs are up and
running, they run smoothly, and cause
and effect link consistently and plausi-
bly (not always the case in simulation
games). Where the information in the
books relate directly to the program -
showing how a balloon works, or how
you calculate fuel consumption in a car
they are clear and good, and the
maps and charts are excellent. The
educational intentions (courtesy of a
team of teachers in Dudley) are also



From "Special Agent".

Market differences

by Virginia Makins

respectable, and the programs encour-
age children to practise important
skills - timetable reading, recording
mathematical information, calculat-
ing, planning and trading off variables,
and so on.

But one suspects that all except one
of the programs would work much
better in a classroom than at home.
Punctuation Pete certainly belongs at
school: he's a delightful alternative to
conventional punctuation exercises
and children love watching him kick
lower case letters into capitals, point
out errors, and jump for joy when you
succeed. He has little weaknesses - no
scope for putting in apostrophes, sur-
rying back along lines from right to
left, instead of jumping from the end of
one line to the start of another. But
those are details. (The other program
on the tape - a peculiar thesaurus, with
associated anagrams and Hangman -
looked pointless.)

Car Journey and **Special Agent** get
away from drill and practice. But
they're pretty hard work. At its most
interesting level, **Car Journey** allows
you to run a delivery service, choosing
contracts to collect and deliver from a
longish list. It's a game with plenty of
choices, and it's challenging. But it

demand a lot of time off the micro,
working out distances, costs and tim-
ings. It could go well in a school, with
groups of children, associated activi-
ties, and teacher encouragement and
enthusiasm. At home it's all a bit
complex.

Special Agent is more exciting - you
choose a spy around European cities,
following intelligence reports, and
keeping your own spy network intact.
But again, the endless consulting of
timetables and decoding of ciphered
messages rapidly becomes laborious.
In school, where relays of children
could take over from each other, it
might work well: at home it's a bit like
one of those over complicated board
games that families play once, on a
rainy Sunday, then forget about.

The program that does work very
well at home is **Ballooning**: it is
challenging, but simple, all based on
hands-on flying, and pretty addictive
as you learn to work out the combina-
tions of temperature, rate of fall or
climb, and use of burner and vents, to
fly the balloon where you want. It's not
clear how much science children would
pick up from it, but they need to
interpret instruments and gauges, and
it's far from mindless.

Ways with words

by Audrey Laski

Word Hunt
Sentence Sequencing
Types: £11.50, discs £15.35
For BBC Model B,
Acorn Ltd, 4a Market Hill, Cam-
bridge, CB2 3NU
Price with Words
Type £8.00, disc: £9.50
For BBC Model B
Acorn Ltd, 77 Qualitas, Bracknell,
Bucks RG12 4QG

For those of us who are trying to
convince others that the computer has
a great deal to offer to teachers of the
arts and humanities, it is rather sur-
prising to find that the available soft-
ware may be downright counter-pro-
ductive. The possibilities are endless,
but those currently producing material
seem to be settling for the least
interesting options, and giving far too
little help to the teachers who might
use their products.

One of the arguments of those who
object to the use of the machine is that
most of what one does with it can be as
well done by hand. This is certainly
true of **Word Hunt**. Every English
teacher knows that there is no more
effective way of setting a class down
quietly than to give it what used to be
called the "Evening Standard Word
Game", no pupil who is even marginally
proud can resist the challenge to
find as many words as possible out of
the letters of a given one, and pencil
and paper are perfectly adequate
tools. There is therefore no need to
motivate through the use of the com-
puter, and it is hard to see what the
point is of computerizing this activity.

The sequencing of words into sen-
tences and sentences into coherent
paragraphs is like a game, more of
an exercise, and so the motivation of
it could be valuable, given that the
exercises are themselves of value.
To work through the exercises in
Word Sequencing is fun, but with only
the brief, hazy on the back of the
package, and the instructions about
moving the cursor, it was extremely
difficult to know just how badly I had

done: much more important, however,
is the uncertainty about what the
program makers are expecting pupils
to get out of the exercises.

There were various possible
strategies for re-arranging the word
sequences to make sentences, some
faster than others, some with more to
do with one's recognition of basic
sentence structure than others. If the
object was to teach English sentence
structure, I found it hard to believe
that repeated practice with the
machine would really tell the native
English speaker much more than he
already knew, though it might be
helpful to the ESL learner. However,
the object may really have been to
enable children to develop swift sort-
ing procedures; it would be valuable to
know.

Sentence Sequencing, which requires
steadier thinking, rather than rapid
perception of structure and then fran-
cistic shuffling, is a more valuable ex-
ercise and would be more worthwhile
still if the sentences were more in-
teresting. Alas, these paragraphs are
of a stultifying banality which the fun
of sorting them on the machine can
surely only keep at bay for a while.

The same tiny channel of com-
munication between program designer
and user is present with **Golem's**
programs, and these again, though
engagingly packaged, with a delightful
little graphics man who dances about
joyously when the pupil gets things
right, seem depressingly unambitious.
There is something to be said for
putting a game of Hangman in the
machine, since it is a game which needs
an opponent, not just pencil and
paper. Again, the suffix exercises are
useful, and do make very clear the
rules they are designed to teach, but in
the end, this is just drill, and I do
question the power of the computer as
a drill-er once the novelty has worn off.
For very young children, the vowel
game, involving the insertion of the
right vowel into short words with the
encouragement of the little dancing
man, could be a useful activity, but in
the end it is all rather dispiriting.

IF YOU TEACH

If you teach in a Primary or
Secondary School you know that
most schools are now becoming
involved with microcomputers. So
why are some schools surging
ahead with the use of micros,
whilst others are in danger of
falling behind or under-using
a valuable resource?

Quite simply
there's an
inequality of
"awareness"
— a lack of
information on
how to best
use the micro as a
valuable teaching aid.

BUT THERE IS A SOLUTION

Educational Computing is a monthly

But Some Are More Equal Than Others

magazine read at all levels of
education.
Educational Computing is the only
computing magazine devoted to you
— the teacher — showing you how
to put your micro to work across
the curriculum.

Find out what educational software
is available for your subject — how
other schools and colleges have
implemented the micro in the
curriculum — what the
Government's really doing —
courses — vacancies — opinions —
news and hardware — innovations
— applications — and the
future of education.

SO, IF YOU TEACH

So, if you teach
any subject, from
Biology to
Geography, from
German to
Gymnastics,
Educational
Computing will
inform you how

to best use your school's resources
with fresh ideas.

Get a FREE sample copy today by
simply writing to:

Valerie Day,
Sample Copy Offer,
Educational Computing,
8 Herbal Hill
London EC1R 5JB
**EDUCATIONAL
COMPUTING**

EDUCATIONAL
COMPUTING

Tomorrow's world?

Barry Fox visits Berlin's giant exhibition of video, television and hi-fi systems.

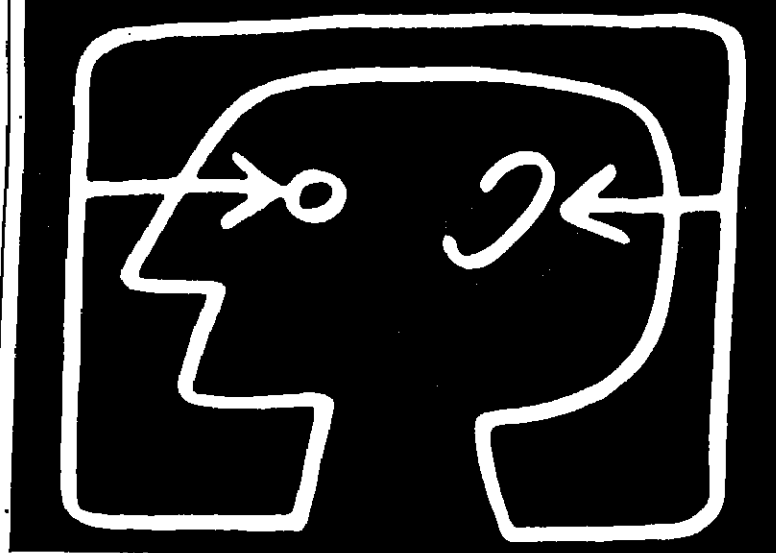
Early autumn is traditionally the time for hi-fi and video shows. These give the trade, press and public an opportunity to see what new equipment will soon be in the shops. The popular Harrogate Exhibition has grown too large and expensive over the last ten years. Trade support has slipped away, so the organizers have skipped a year. They hope to start again next year with a smaller, more homely event, like in the early 70s. Hopefully they will succeed. Britain needs an annual exhibition of all that's new in the crazy world of home electronics and entertainment.

Germany has a giant exhibition, the Funkausstellung or Radio Show, that is staged every two years in Berlin. In contrast with British shows, it gets bigger and more popular every time. Around half a million people attend, almost half of them from outside Berlin.

It is easy to see how the electronics industry in Germany has held its own against Japanese competition for longer than any other European country. There is intense national pride. Consumers buy German by choice and continental manufacturers like Philips, Grundig, IFT and Telefunken stage lavish displays. The V2000 video format has a 30 per cent share of the market in Germany. But the writing is on the wall. The Japanese are now winning there too. The most exciting sights of the show originated from the Far East, even though they may appear in our shops under European brand names.

At Berlin the Japanese manufacturers of the VHS and Beta video systems were demonstrating a technique for recording very high fidelity sound on a domestic video recorder using FM radio technology. Until now the standard of domestic video sound has been very poor. But Philips and Grundig, who promote the V2000 system, still haven't announced any intention of using a similar FM sound-recording technique. Sony was showing Beta Movie, a combined video camera and

Video-TV-HiFi



recorder that uses a standard Beta format cassette, while JVC was showing VHS Video Movie, a similar but even more compact camcorder using the VHS-C miniature VHS cassette. Meanwhile Philips could show only a bulky portable recorder that uses a standard V2000 cassette, with a video camera that is just smaller than the Beta or VHS camcorder, and Grundig's portable was a European version of the Japanese-made Funai-Tech-nicolor unit with a non-standard quarter-inch tape cassette. This format, CVC, has been on sale in Britain and the USA for several years but has never succeeded commercially because of strong competition from VHS and Beta.

The technology of the VHS and Beta hi-fi sound systems and camcorders is fascinating because it represents a considerable technical achievement. As it needs to be discussed at length, we will return to hi-fi video sound and camcorders in a future article on new video developments in the Audio Visual Extra to be published on October 21.

VHS manufacturers in Britain are already selling machines which run at half speed to double playing time per videocassette. Sony has not yet joined in the race, but at Berlin both Philips and Grundig were showing V2000 recorders that can be switched to half speed to offer up to eight hours playing time for a four-hour videocassette. From the start of the show Grundig was exhibiting an eight-hour machine to the public, with a recommended shop price of 2,098DM (just over £500). Philips was initially demonstrating its machine only to the press, in a back room. But before long they started showing the prototype to the public, with a vague promise that it would be available some time next year.

As with the VHS half-speed machines, picture quality is acceptable but sound very poor. Grundig and Philips half-speed machines have manual switching for speed change on replay, whereas the VHS half-speed machines adjust automatically. This can be very useful if the recording speed has been switched halfway

through a programme as it is being taped off air. One worry at Berlin was the sight of small Hongkong firms offering apparently unlicensed videocassettes, that is to say blank videotape cassettes made without the approval of Sony and JVC, who attempt to control the standard of tape sold for the Beta and VHS systems. Sub-standard tape will produce poor pictures, muzzy detail and drop-out blips like snow. It may also be too abrasive and damage the video heads. Another worry was the sight of Hongkong-made replacement head drums for videocassrecorders. These are cheaper than authorized replacement parts but likely to prove unreliable.

The Japanese continue to make everything as small as possible. Once it was only electronics, but now they are miniaturizing mechanics with a precision and skill previously associated only with the Swiss watch industry. The incredibly small camcorders are a classic example. Sony has built a portable Walkman cassette recorder that plays a normal-size videocassette, but is itself no larger than the plastic box in which the cassette is housed.

This is achieved with a single battery and a new kind of motor that uses flat coils. Aiwa has a portable radio styled to look like a cigarette lighter. Through headphones the sound is astonishingly good. National Panasonic has an interesting new idea for making a portable colour television set with a six-inch screen, that looks like a flat handbag. Three tiny television tubes, red, green and blue, together project a full colour image on to a translucent screen that hinges up from the handbag body when the user wants to watch television.

Videodisc is in very low profile. Although Philips and Pioneer were showing domestic Laservision players, it seems increasingly doubtful that this system can take off in a big way for home use. Already videocassettes offer longer playing time, and the disc has to be turned over halfway through a feature film. Of course a disc cannot record, only replay. Picture quality from domestic videotape gets better all the time. Before long there will be hi-fi sound from VHS and Beta, which leaves low cost the only real advantage of disc over tape. But tape prices are now starting to fall. RCA and Hitachi are soon to launch the CED disc system in Britain, with players costing under £200 and feature film discs under £13. Profit margins are low, or non-existent, it costs around £5 to make a disc.

The future for Laservision looks healthy only in the industrial market.

Philips were showing a Laservision player with an integral cassette deck can be used in conjunction with an educational programme. The system, VHD, in a similar way, is an encyclopaedia of car repair, made by Thorn-EMI in Britain, has sections which can be called up chapter by chapter as a working textbook. It passes, the likely scenario for video disc becomes clearer. The RCA system will sell to film buffs collecting their own library of features. Laservision will disappear from the domestic market because its picture and sound quality cost too much and come too late. VHD will be offered for schools and education and will flourish. Laservision in this field. Although, however, the Japanese VHD system could win over Laservision for two reasons: it is backed by the marketing and software clout of Thorn-EMI and the same discs can be used on both American and European players.

Compact Disc, the mini audio version of Laservision, looks all set to succeed. At Berlin almost every manufacturer was showing a Compact Disc player. It is disappointing that although the system was first launched by Philips in Europe, much of the running is now being made by Japanese firms. The Japanese music industry has embraced CD with open arms and is making its players smaller and ever more exotic. They are selling CD for novelty, convenience and compactness, as well as sound quality. The idea of a five-inch disc that is more immune to fingerprints and so face dust appeals. The fact that hi-fi enthusiasts are unhappy with subtleties of the sound is insignificant for mass market sales. Hi-fi buffs only hope that the system's problems will be ironed out over the next couple of years.

Finally, the biggest surprise of the fair was a mystery absence. Empty launch of an 8mm video system. For this year all the leading electronic firms around the world agreed on a new standard for portable video on a tiny cassette of 8mm tape. The British press catalogue even showed a picture of an Agfa 8mm cassette and several manufacturers, including Philips, promised to demonstrate prototype camcorders. But the show opened with no 8mm equipment on view. Behind the scenes the video manufacturers had quietly agreed that they prefer to continue making money from existing video systems, before venturing the market with a new and incompatible format.

The Amateur Naturalist
Channel 4
Friday, 8.00 pm
Johnny's New World
BBC1
Monday, 7.10pm

For a few weeks we have the choice of two grizzle-beared naturalists on our screens. David Bellamy came to fame as a TV personality and we have become accustomed to a regular series from this most unostentatious of professional botanists. Gerald Durrell, on the other hand, though by no means a newcomer to television, is more widely known for his books. A naturalist from boyhood, does he still consider himself an "amateur"? In any case, nowadays, such definitions are blurred, off screen as on it. Certainly the attitudes of these two naturalists are unrelated to their professional status. Broadly speaking, David Bellamy takes a whole earth view, with conservation of habitat and self-renewing resources a priority, while Gerald Durrell puts his main energy into conservation of species, particularly birds.

The first Gerald Durrell programme was set in Corfu where he spent his childhood and wrote his first, funniest and best book *My Family and Other Animals*. This is a book which intimately communicates a young boy's excitement and observational curiosity about wild creatures, something the series describes but falls short of conveying. The presentation is too relaxed and slow paced to create that kind of excitement. Certainly Durrell's still presence and cultured, teacherly tones are a long way from Bellamy's volatile exuberance.

The paradox is that Bellamy's exuberant boyishness of manner: gesticulation, jolliness, punning - works in a way which makes it possible to bring to us a considerable breadth of vision and ideas. He would never get away with anything of such intellectual richness with a straight, no nonsense presentation. Don't be misled by appearances, here is a television presenter of formidable skill who brings together the threads of science, sociology and ecology in a comprehensible and popular form. Bellamy is one of the few writer-presenters on television who can make adults think.

In this series *Bellamy's New World* is supported by unusually good camera and music, once again produced by Mike Weatherley. They get away with murder, brilliantly. This Monday's programme for exam-



Two styles

Francesca Greenoak observes the Durrells and Bellamy in their natural habitats

ple, we find Bellamy on an Oklahoma prairie juggling with the catch phrase "grass as high as an elephant's eye" apparently just for the fun of it. The camera gives us a breathtaking shot of his horse drawn cart moving silhouette against the sky line and the music takes up the theme of "Okla-Okla-Okla". This lighthearted little episode takes on a different aspect a few minutes later when we hear of fossilized mastodons found on such a prairie and traces of those very grasses still visible on fossilized teeth. The Bellamy team knows he is parodied, and they out-parody the comedians, camping it up with skill and professionalism and then romping home with a serious message. What you remember is not Bellamy's performance, but the animals of the prairie, prehistoric and present, and

the prayer for long-term viability as against short term profit: the self-sustaining grasslands against the Westabix landscape. A message worth stating your name on, worth going to prison for, but dispensed with a panache and lightness of touch which engages adults and children alike.

The obvious suspicion is that Gerald Durrell is being promoted as an antidote to Bellamy: his sedate didacticism is such a contrast. Much of what he says, he delivers seated, crooked comfortably on a chair or a rock. At times the pace was a touch too relaxed: observations about much of Corfu being still unspoiled would have been better left inside the tourist brochure. In other places I had a sense of opportunities missed. Musing on whether house-martins on the church were in a direct line of descent from

those he watched as a boy, is commonplace; the amateur naturalist should surely add that from what we know about house martins' breeding habits, they probably were.

The parts where past and present were linked together knowledgeably, came alive: spotting the agama lizard which in boyhood days he'd found only on a single cliff face and which nowadays can be seen throughout the olive groves. The presentation is shared jointly by Gerald and his wife Lee and they make a harmonious and refreshingly equal partnership.

We see Lee, also a childhood naturalist, observing a gannet jumping spider, suitably by means of nothing more technical than a magnifying glass. Perhaps the best moment so far occurred as the couple were making their way down a nostalgic path when the bulky and no-longer-young Durrell suddenly darts aside and returns with a glass snake which both fondle admiringly as Gerald recounts a sharp Greek version of the St George story which identifies this pseudo snake with the dragon. Throughout, this series unobtrusively but firmly sets its face against prejudice: that against snakes (or slow worms), flies, spiders, rats and women. (Natural history is still male dominated.)

The amateur naturalist is encouraged to wonder, observe, take photographs and sometimes to capture. The series dwells on the practical activities, stressing the importance of inherent skills and simple equipment such as yoghurt pots and jam jars. However, talking down the years to children and novice naturalists, the Durrells cannot shed their years of experience - or physical accoutrements: a microscope or top camera. But that's as it should be. As child naturalists they had sharper senses, as adults they have more gear.

They demonstrate a fellow feeling (if a dominating one) for the creatures with whom they share their environment, whether this is the countryside of Corfu or the alleys of New York City, and they show a bold disregard for conventional proprieties even in the face of the unnatural demands of television.

In a memorable sequence, we follow Gerald cooking the breakfast eggs and sitting down beside Lee at table, not to eat but to deliver a short lecture to camera, of which Lee, seems, untypically, to be unaware. The camera then turns to Lee who pushes her egg aside and with resource and eccentricity well worthy of *My Family and Other Animals* produces a jam jar and 'vaseline' and makes an insect capturing por-

briefings

radio & tv

For schools

STOP, LOOK, LISTEN
(Monday, 9.59, Wednesday, 11.10 TV)
The first of two programmes for seven to nine years old slow learners about the police.

ZIG, ZAG
(Monday, 11.00, Wednesday, 14.40 BBC2)

"Hungry Times", a play in two parts by Ian Taylor, marks the welcome return of drama for eight and nine year olds. Consolidates the information of the previous programmes and presents the story of a group of Saxons after the Norman conquest.

VOIX DE FRANCE
(Monday-Friday, 00.30 VHF4)
Series for use selectively with O and A level students. Includes short plays, reportages, documentaries, a radiovision programme on Rouen and a topical discussion. Teacher's Notes are essential.

BELIEVE IT OR NOT
(Tuesday, 9.30 Thursday, 10.50 TV)
Two new programmes on Christianity feature the role of the Anglican church through the eyes of the priest and his congregation. Next week the over eleven look at the differences between the Roman Catholic and Baptist churches.

HISTORY: NOT SO LONG AGO
(Tuesday, 14.00 VHF4)

The activities of a commercial radio station help nine to twelve year olds learn about the development of road transport. The Motor Car introduces Dave Double D Clutch, the show's rowing reporter and Jerry Carr who gives technical tips.

NATURE
(Wednesday, 14.45 VHF4)
"Birds in Winter" is a unit for eight to ten year olds concentrating on starlings, the tufted duck and birds which feed at a garden bird table.

ENGLISH FILE
(Friday, 14.30 BBC2)
Selected from the Book Programme for 14 to 17 year olds, an interview which takes Brian Moore back to his native Ireland to discuss the effect Ireland has had on his writing.

Continuing education

THE ORESTEIA
(Saturday, 20.00, Sunday, 19.15 C4) (see p 25)

MATHEMATICAL THINKING
(Sunday, 11.20 BBC1)
In response to the Cockcroft Report on the state of maths teaching in the country, Norman Gower and Nick James of the Centre for Mathematical Education at the Open University, extend their OU courses to help all teachers guide their children through new ways of learning basic maths.

THE ARABS
(Sunday, 21.00 C4)
A new documentary series on Arab life and thought begins when Basim Musallam, a Lebanese historian, goes on a journey through the 15 nations which make up the Arab world.

PEOPLE FIRST
(Wednesday, 12.30 BBC2)
This series aims to help the parents of mentally handicapped children, on how to cope with changing human relationships as children grow up. Can they marry and live on their own? Where should parents turn for help?

RML offers

Paul McGee writes:
The second part of the scheme is aimed exclusively at primary schools. About 20 per cent of schools taking part in the DoI micro-in-primary schools scheme have chosen the Research Machines 480Z. The heavily subsidized price made the machines good value but many schools must have been worried at the expense of purchasing further RML equipment at full price.

Primary schools need discs if they are to cope with LOGO programming and larger-scale activities such as data processing and computer managed learning. Cassette loading and storing are too slow and ROM packs, which speed the loading of programs, can not be used to store programs for later sessions or teaching.

RML have produced disc drives for the 480Z and are making primary schools an offer which they claim may be worth a million pounds. They are offering a single drive-disc unit for the 480Z for £299 and a double drive-disc unit for £549. This is a saving of about 40 per cent.

The drives are double density and can store 328K on a single drive (£299)

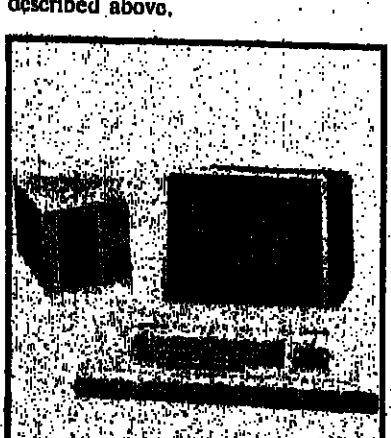
and £58K on a double drive (£549). The disc controller allows the drives to read single and double sided discs which have been stored in either single or double density mode. This means that even the oldest 380Z disc can be read, thereby giving easy access to all RML software produced by RML or other suppliers.

The offer is limited to primary schools which chose the 480Z as part of the DoI scheme. Orders have to be placed with the i.e.a. who are also responsible for ordering the necessary upgrading of the machines, fitting the new ROMs and returning the old ones. (These upgrades also allow 80 character mode and contain BASIC version 5.4 in ROM.)

This is undoubtedly a very attractive offer to those schools or i.e.a.'s already committed to RML, but others may still take some convincing. The 480Z and disc drive will be beyond the reach of most primary schools. An obvious simple improvement would be to allow two computers to access the same disc drive under software control. There would be no need for complex network software if

only two computers are used and this would enable schools in approach the purchase of further 480Z's with less trepidation about the financial burden.

However, in the future, if many machines have to have access to a disc, then the whole school must be networked or the cost per class will be prohibitively high. It is hard to imagine many primary schools wanting networks and it is, therefore, likely that RML's pricing policy will make them increasingly uncompetitive for primary schools. Primary schools should also take note of the software offer described above.



Light on leaves

Leaves of Green, 2nd edition
16mm sound colour film
13 minutes running time
Produced in the USA by Stanton Films, Los Angeles
Sales enquiries to Educational Media International, 25 Bolleau Road, London W5 3AL.

This is a very attractive and beautiful shot film to introduce young children to both the value and the beauty of green leaves. The classification of all animal life to two seed leaves is considered. The basic structure of the leaf is described and examples of modified leaves such as floral parts and tendrils are shown. The arrangements of leaves on a plant are illustrated as is the movement of leaves in response to light. The difference between deciduous and evergreen leaves is made clear and the functions that leaves perform - such as food storage and defence - are shown. The final sequence illustrates autumn leaf-fall and the production of seed mould.

Photographically this film is quite a delight. Although it is American, it is a few American plants are specifically identified. However, the concept is at times unnecessarily complicated, introducing terms such as "photosynthesis" without an adequate explanation and preferring the term "cotyledon" to the more descriptive "seed leaf".

John A. Barker

Focus on war and peace

by Jessica Saraga

Flashback
Channel 4
Monday, 6.30 pm

The first war in movie history, against the Boers in 1899, found people happy to make their fortunes marketing patriotic film of departing troops, strong on the great imperial values of endurance and self-sacrifice.

When the action shots weren't exciting enough because of the difficulties of manoeuvring a three-quarter ton microscope where it was all happening, they were equally happy faking it all with a cast of friends and relations in a field somewhere in England, for a really dramatic "front line" sequence.

And how good for morale it was for all the Dolly Grays bidden goodbye back to the soldiers of the Queen to see the raising of the flag at captured Bloemfontein, and the naval troops from the Admiralty marching in. But no one at home ever saw the scorched earth and the concentration camps on film; by the time of this last mopping up operation, all the press corps and the cameramen had gone home.

There will be more, examines the propaganda use made of the film, and its descendants in the British Empire. The film of this first excursion into the theatre of British colonial war to South Africa has been its last act in the

The "Battle of the Somme" film, from which these extracts are taken, was subject, of course, to censorship. Edited as a documentary under the supervision of the War Office and the Army, its captions were written by military intelligence, and Lloyd George himself provided an introduction which was read out by cinema managers before each showing. Hundreds of thousands flocked to see the film in its first week; a new propaganda medium had been born.

The emphasis is definitely on morale; boxes of munitions are carefully identified for the benefit of workers who make them, German dead are shown but not British, the padre raises spirits and drinks and cigarettes are offered to German prisoners. The scale of the slaughter, though, isn't revealed, but then even while the film was first showing there was still a theoretical chance that the 16 mile push would be successful.

Knowing what we know now about total casualties at the Somme and the eventual cost to Europe of those four years war adds a bitter irony to the footage and an immortal propaganda to those waving, smiling, dead soldiers. As usual, Channel 4 is to be congratulated on its coordination with other outlets; you can see more of these films at the moment at the Imperial War Museum, and you can buy "Flashbacks" - collections of stills from them - from the National Extension College. If ever an argument were needed for saving decomposing film, Flashback provides it. No matter if the medium has been used by profiteers and propagandists, some of the truth of the past will shine through to move and instruct us.

Reactions to the micro

The Open University "Micros in Schools" packs - in-service courses at many different levels - are now becoming available and in order to provide a flavour of the topics being covered by these materials, the BBC will be broadcasting two specially abridged versions of the accompanying videocassettes. The cassettes themselves are designed to provoke discussion among practising teachers who are studying the packs. PS41 Educational Software and PS43 Micro Electronics.

Quality Software? looks at how educational software is produced by YMA, the Investigations on Teaching with Microcomputers as an Aid to Teachers project at Plymouth. The Plymouth software authors describe how some of their original ideas for software evolved and who was involved in its design and testing. The role of the teacher is highlighted by the programme which shows a classroom trial. The programme aims to help teachers make an informed judgement on existing software and influence the production of good software.

The *Blackthorn Experience* traces the introduction of the OU microelectronics kit into a Northampton middle school. The programme records the teachers' initial reactions to the innovation.

The programme shows the progress which has been achieved a month later and reveals some of the changed responses amongst the teachers. Quality Software? BBC2 Wed 5 October 13.10 to 13.35 repeat BBC2 Wed 19 Oct same time. The *Blackthorn Experience* BBC2 Wed 12 Oct same time, repeat BBC2 Wed 26 Oct same time. Susie Rodwell

CAREERS EDUCATION FOR 'A' LEVEL STUDENTS

Write to EARG, Resources and Technology Centre, Brook Hill, Ely, Cambs for details of MAP, the new course (available from Cambridge).

notes

REVISION
The revision industry expands even further this week with the launch of Clever examination revision videotapes in eight major subject areas by Hazel

Dolbren and Associates. They have been produced by Leslie Ryder, former Director of Learning Resources for the Inner London Education Authority.

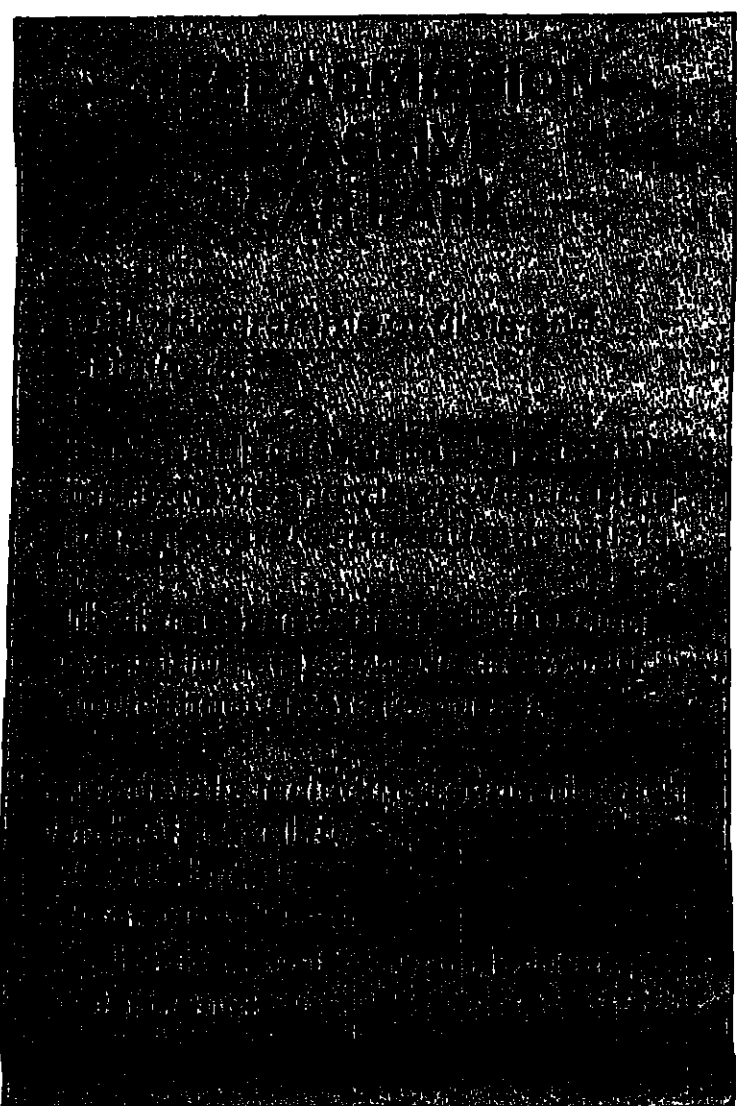
The subject areas are accountancy, chemistry, English, physics, French, mathematics, geography and 'learning to learn'. The videotape programmes vary in length from 60 minutes to 90 minutes and cover say the producers

"the basic revision area from which examination questions are normally expected". Further information from: Hazel Dolbren Associates, 25 Thurloe Street, London SW7.

MUSE MOVES
The new address of MUSE (Microcomputer Use in Education) is PO Box 43, HUL HU1 2HP.

Design and Technology

Wembley
Conference Centre
London
13-15 October 1983
9.30-5.30 (Sat 5.00)



Engineering Design and Technology books for students ... from Pitman

Welding and Fabrication Technology

W. Kenyon
Publication 1982
This text is an extension of *Basic Welding and Fabrication* into more advanced treatment of theory and practice, with particular reference to quality assurance and economics. The general theme throughout is of selection and proper application. There are particularly informative sections on weld characteristics and weld defects.
The book is written for Part II C & G craft students and TEC students at levels II and III.
Paper 246 x 189mm/216 pages/320 figures
ISBN 0 273 01506 9/£6.90 net

Engineering Design for Technicians

B. Hawker and R. Abnett
Publication 1981
This book provides the basis for the proper selection and application of materials, the design form, mechanisms and components, with due regard for corrosion prevention. It also encourages a systematic approach to a given design, function, with particular reference to ergonomic matters. The book is based on the UK TEC level III unit, *Engineering Design* but includes additional topics.
Paper 246 x 189mm/160 pages/120 figures
ISBN 0 273 01673 X/£4.95 net

Engineering Geometrical Drawing

J. S. Brown and J. R. Brown
Publication 1979
A step-by-step presentation of geometrical constructions in both plane and solid geometry. It covers in particular the requirements of GCE O level syllabuses, but in fact is a comprehensive coverage of geometry for all engineering drawing students, either as a learning or as a reference equipment.
Paper 297 x 205mm/144 pages
ISBN 0 273 01821 3/£4.95 net

QUICK ACCURATE LETTERING

THE modern Brush Stencil giving
Maximum Complete Letters
Indicating suitable for use on wall charts, diagrams,
Particularly suitable for use on wall charts, diagrams,
posters, notices etc. Write for particulars
THE CONAGAN CO. LTD, 81, Bilton Street, London
E.C.1M 6NQ, Tel. 01-251 2526

Infant phenomenon

continued
solving is a natural aid to understanding. When craft skills are acquired so they are used to test and modify the ideas as they are put into practice, making their objective evaluation possible and revealing the level of understanding reached.

Later on in secondary schools, as more demanding problems are met, the techniques of problem solving are extended to include those skills identified by the APU as representing the composite skills of design ability. In such cases both aesthetic and technological considerations have to be resolved and their solutions successfully combined if the final outcome is to be acceptable to the user.

At this level, craft skills developed across a range of materials play a dual role, fulfilling both a technical and an aesthetic function as they are used to refine and ultimately express the design intention. Such is the natural development of CDT, from the earliest primary phase in which the aim is to develop in pupils a sense of pleasure and excitement that comes from a practical approach to problem solving to the secondary phase which aims to build on this while developing those complex skills and abilities referred to earlier in the introduction to the JCWP paper. A subject development on this scale has understandably taken many years.

A paper recently prepared by the CDT committee of HM Inspectorate, but developed in association with teachers and I.C.A. advisers over the last five years, states clearly the present subject position. Entitled *CDT A Curriculum Statement for the 11-16 Age Group*, the paper, stands as a preliminary contribution to the second edition of the "HMI booklets" *Curriculum 11-16* and is now available upon request from the Information Division of the DES. The introduction to this paper emphasizes the interrelated nature of craft, design and technology from the age of 11 plus onwards and affirms that a CDT course will not develop the full potential of pupils if any one aspect receives little or no attention. The remainder of the paper shows how this might be achieved. Taken with the work of the APU and the JCWP mentioned earlier, it supports the argument of the latter for a nationalization of the many courses currently offered under the umbrella title of CDT to those recommended for examination at 16-plus namely:

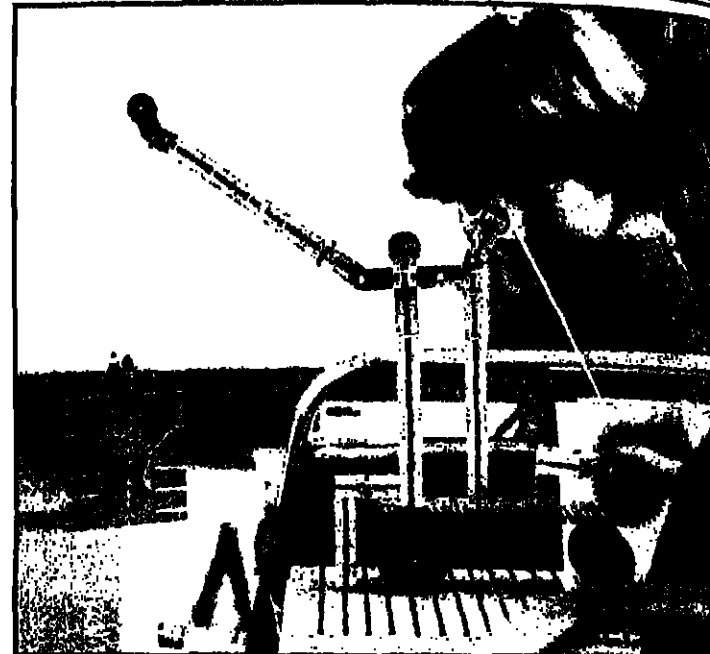
- CDT: Design and Realization
- CDT: Technology
- CDT: Design and Communication

In addition to overcoming the erratic subject development mentioned earlier, this recommendation of the JCWP goes further, by stating clearly that CDT is to be seen as the central subject which offers three separate courses for specialist study in the upper school. Each course would therefore share common subject aims.

This represents a further advance. If accepted in principle, it would help teachers by simplifying course structure up to the age of 14-plus. Irrespective of school or, e.g. a variable, courses to this level would need to offer general design experience while developing skills and concepts as a basis on which any one of the three specialist courses could be built.

The most significant implication of this recommendation, however, relates to the specialist area of Design and Communication and the opportunities this affords for a reappraisal of both the content and methodology of current "technical drawing" courses. This work of the JCWP is significant and it would seem to mark both the end of the first stage of subject development and possibly the beginning of the next. Its clear statement of aims, objectives, content, structure, course developments and assessment criteria embraces all earlier initiatives and gives CDT the sharp focus it needs.

To emphasize on this existing teaching programmes might need some modification in order to meet such criteria. However, the timing of such readjustment is most opportune when considered in conjunction with the recent national technical and vocational education initiatives (TVEI) developed across the 14-19 age range and with the proposals for vocational examinations at 17-plus (CPVE).



Satisfaction in solving a practical problem aboard a Bedford bus—page 44

Although CDT constitutes only one part in the broad provision for TVEI and CPVE, it is nevertheless an important ingredient and will have a valuable part to play in prevocational courses of this kind.

The next stage of subject development will centre on this 14-19 phase. Specific types of experience comprising both group and individual project work will need to be structured within the 11-16 framework to accommodate the later needs of pupils pursuing CDT within either TVEI or CPVE courses, but this need not be incompatible with 11-16 aims. If pupils are to opt for TVEI courses at the age of 14-plus from an informed position—and many more will be invited to do so in 1984—they need to experience before then the stimulation that comes from meeting the challenge of designing and making within CDT and to see the relevance of such experience to all aspects of adult life.



Making CDT available to girls is one of the many challenges facing teachers

Similarly, CDT courses offered within the TVEI scheme will need to sustain this motivation of pupils while preparing them for possible careers in the manufacturing, servicing or marketing industries.

Regardless of its close parallel to the practices of industry, the central thrust of CDT must always lie in the learning opportunities it creates for pupils. This is its strength. Its aims must include the continued development of imagination and inventiveness; its methods must reflect the scope it has for individual learning; for the development of design skills and the related skills and attitudes which are adaptable to the needs of modern life.

However, the significance of these skills to the needs of industry must not be overlooked. It would seem timely therefore to suggest that when selecting content for newly structured courses, a closer liaison between schools, industry and local institutions of further and higher education (FHE) would prove beneficial. A recent survey of "technical drawing" type courses in schools showed that some schools are already doing this.

Industrial sponsorships for school design competitions and the increasing support given to all levels of CDT by the Department of Trade and Industry give great encouragement. They show how well the promise of CDT received and respected for its achievement to date. The need now is to communicate the message of its educational significance more widely in order to make CDT available to a greater number and range of pupils, especially girls. This is but one of the many challenges still facing CDT teachers.

Increased demands will arise as expectations of CDT are heightened. Having now shown what is possible, our schools and colleges, the level of basic expectation has been set. It will be difficult to sustain this while continuing to increase the range of activities that comes with every new development in materials or information technology. Unsurprisingly by appropriate research and restricted by resource opportunities for in-service training, this presents a formidable challenge but one which CDT teachers have proved themselves willing and able to meet.

Enthusiastic CDT teachers and responsive pupils will always find work near to the limits of technological invention. It is important that they should be encouraged to do so and in-service opportunities need to be provided to make this possible. The British Schools Technology Initiative, launched recently with the aid of the DTI will give much needed support in this respect. The immediate pedagogical needs of all CDT teachers, however, appear to centre on furthering development of teaching methods which expose pupils to problems in a manner which encourages individual responses coupled with a refinement of assessment strategies.

This would increase creative opportunities and provide more detailed profiles of individual abilities and interests than those currently in use. During the earlier days of CDT, when design briefs which directed pupils to the problem in hand by way of one or two lines of printed text.

Often these steered pupils towards teacher-conceived solutions rather than responses to open-ended problems. Assessment in such cases caused little difficulty. As teaching sensitivities have developed with experience, it has proved to be inadequate. It is now recognised that in order to develop creative abilities, pupils must be encouraged to respond in a manner which reflects their own perception of the problem, and assessment techniques need to be developed to accommodate such diversity. This is an important point as it distinguishes CDT further from its earlier, less individualized and also from the practice of industry. If schools are to work closer with industry as suggested earlier, it will be increasingly necessary for the point of difference to be understood. Their respective aims must not become confused as working methods, methods of working increase, and those of future employers are likely to be better served if educational goals are pursued through CDT rather than the converse.

G. A. Hinks is Staff Inspector, HM Inspectorate.

At your service

Nick Baker reports on ESPI

From his tiny office in the middle of the Loughborough University campus David Girdler runs ESPI, the Educational Service of the Plastics Industry.

In 1975, the plastics and rubber industry decided to increase its links with education and increase awareness of plastics in schools and colleges. ESPI (formerly ESPRI, the Educational Service for the Plastics and Rubber Institute) is not devoted entirely to the plastics industry and is sponsored by companies through the industry's training board.

ESPI handles thousands of enquiries and requests for teaching materials a year from craft, science and careers teachers as well as from pupils and students. "Plastics is one of the few growing industries", explained Girdler, "the all-plastic electric kettle and the all-plastic bicycle are already realities and the all-plastic electric car (including motor!) will be in a matter of years."

ESPI has recently run in-service courses for teachers of both craft and science on the theory and practice of plastics. Teachers were able to get "hands on" experience as well as listen to guest speakers from the industry.

The most popular service the ESPI provides is its distribution of teaching aids, learning materials, examples of plastics materials and careers information. The choice of material is wide enough to cover an age range from junior school to college of further education and in some cases beyond.

ESPI can offer guides to the use of plastics within specific industries like food, furniture, medicine and building. It also produces a useful booklet, "Teaching Aids in Plastics", which catalogues all the teaching aids available. This includes information on where to find films, videos, slides, as well as free information from the industry. Another booklet provides information on text-books dealing with various aspects of the plastics industry.

ESPI can also provide advice on how to handle plastics safely in the workshop (something that David Girdler believes worries craft teachers with little experience of plastics in schools), careers at all levels, and a resources box.

The resources box, which costs £17, is intended for use in science, craft, home economics and even humanities lessons. It contains samples to illustrate different plastics processing, worksheets, booklets, and careers materials. The samples have been produced in such a way that they can be used as the basis for a permanent display.

One item of which David Girdler and ESPI are particularly proud is a new tape slide set (available Christmas) dealing with the history of plastics, the different processes, and plastics work in six schools, ranging from boat building to reproduction Ancient Egyptian stringed instruments.

If students and teachers are unable to find the information they want using ESPI's wide range of printed material, they can also use its postal enquiry service. ESPI can supply free of charge and usually within a matter of days, answers to specific problems encountered in the study of plastics.

ESPI is particularly enthusiastic about making the study of plastics more acceptable for the purposes of examination. Although many examining boards offer it as an option within craft and technology courses, too few teachers have the resources or the experience to take up that option. David Girdler believes this is a great pity for he is convinced that schools and, in particular, CDT teachers, cannot afford to overlook plastics. "They are the material of the future," he says.

For more information on the plastic industry write to: ESPI, Department of Creative Design, University of Technology, Loughborough, Leicestershire LE11 3TU. Tel. (0509) 233065.

EXTRA

Vital but vulnerable

The place and development of fashion in the curriculum.

By Christine James and Enid Stott

Fashion is a very serious craft and an important one occupying a unique status linking areas of art, textiles and design. It is a continuous connexion flowing between these disciplines with each one feeding each other. The craft does not exist in isolation and it is this very position which makes it so vulnerable within the secondary curriculum of the 1980s.

Factors such as falling rolls and new examination boards must not be allowed to affect the future of the subject, nor must the mass production of cheap, exaggerated or mundane designs be allowed to cloud the issue of its importance. Everyone wants to look their best and one should never underestimate what clothes do for people; everyone has the urge to express themselves to create things and teenagers are no exception to this rule, the foundations are there to build on: the opportunity should not be missed.

Jean Muir calls herself a dressmaker; perhaps she is right, although the term is not glamorous or trendy. Yves Saint Laurent hates fashion because it is too tyrannical. The term "fashion" is misleading—creative dressing may be a more apt title, for fashion covers a much wider field than clothing.

For any subject to be justified on the secondary school curriculum it must fulfil certain criteria, namely that it must influence the individual's intellectual, social, physical, moral and aesthetic development. Fashion within the school curriculum serves these criteria well. The understanding of the processes, materials and the correct use of practical skills in dress becomes an intellectual process in the realization of a design.

Within the individual, fashion is one of the intellectual expressions of personality. Dress and dressing is a social activity, notwithstanding its historical context; adolescence is a stage when dress within social conventions is explored within the classroom itself, the practical situation is of course a social activity. The acquisition of practical skills along with their associated skills of coordination, dexterity, manipulation, etc. reveal the physical content of fashion, while a knowledge of dress is well related to the body of its physical development.

For older pupils our exploration of design, fashion, mass production, economy, creativity, quality, will question the morality of fashion design. Aesthetically, fashion develops the individual sense of taste, colour, creativity, design, shape, form, beauty and elegance.

Dress is the central area of concern for this subject. To bring creativity into what could be called dressmaking takes a great deal of time and preparation with the pupils and this creativity cannot be developed until the fifth/sixth-form level, although of course many basic ideas, such as dyeing, printing, machine work, should be introduced to the lower years.

Creativity in dress develops from pure dressmaking—but how far do we insist on perfection in technical proficiency when it could be more advantageous to encourage experiment? Too great a demand could diminish interest in the subject—demand for perfection comes later with examination work.

When pupils design garments for themselves they can finish them properly, add the little details like coloured or patterned linings, surface decoration by the use of dyes, machine or handwork, beading, etc. they then create a truly individual look—a style of their own—for children are very much individuals. Good shapes, fabrics, pattern and colours all working together are the basis of good design.

Creative crafts are very much inter-linked with dress. A basic example being a piece of tie and dye made into a garment. Hand-knitted garments are being used by such top fashion designers as Calvin Klein. Traditional crafts, modern techniques and materials should not be ignored, particularly in view of the larger amounts of leisure time we seem to be gaining.

Our job is to see that fashion is not allowed to be submerged and choked through lack of understanding of its true value as a creative subject and the part it needs to play in the development of the curriculum of the 80s. The future cannot accurately be anticipated, but if craft industries are to flourish the country must have trained disciplines to stand them in good stead when they go out into the world.

M. E. Stott is head of needlework, Shenley Court School, Birmingham. C. M. James is head of needlework, Harborne Hill School, Birmingham.

Wider horizons. a broader spectrum in the new Hestair Hope Art & Craft Catalogue

You'll find so many high quality items to stimulate creative development in the newly designed Hestair Hope Art and Craft Catalogue, where the emphasis is firmly placed on "value for money".

With an imaginative mix of media and materials that takes in every kind of handicraft from embroidery and needlework, woodcarving tools, template murals to jewellery enamelling, the delicacy of paper flowers, ceramics and calligraphy.

A total creative spectrum. And when it comes to painting the catalogue is just as original, including an entirely new range of exclusive, high quality paints, CRYSTAL. Excitingly packaged and educationally designed for younger children with colour titles based on everyday subjects which have natural associations with the colours.

Collect your free copy of our 1983 full colour catalogue from stand 17 today.



Hestair Hope
St. Philip's Drive, Royton, Oldham, England OL2 6AG
Telephone: 061-633 6611/061-632 1411 Telex: 666515

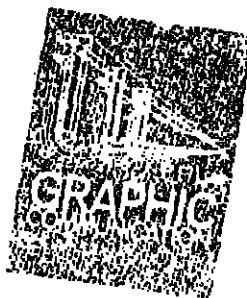
SEE US ON
STAND
17

EXTRA

Graphic Communication

P.F.LYE

- for CSE and O-level graphic communication/technical drawing courses
 - can be used within the lesson and as a homework textbook
 - questions at the end of each chapter reinforce the principles covered and guidance is given as to where in the text to find assistance
 - tasks are based on relevant, everyday objects and provide the opportunity for individual design and problem solving
- "a very readable, well presented package and I can definitely recommend it to anyone who has a more progressive approach to the teaching of technical drawing." School Technology 0 245-0245-5340-0 £3.75



Integrated Craft and Design

C. CABORN and I. MOULD

- a complete course for CSE and O-level craft, design and technology examinations
- offers a design-based approach to solving craftwork problems
- stresses the general principles of designing and working with materials rather than the specific craft skills related to only one material

0245-53633-7

£5.10

For inspection copies, please write to our Education Department, giving your school address.

HARRAP

19-23 Ludgate Hill, London EC4M 7PD

INTRODUCING CRAFT, DESIGN AND TECHNOLOGY?

It's an exciting synthesis isn't it? But difficult to implement with the few pupil resources available, especially with lower school and, perhaps, CSE pupils.

Introducing Craft, Design and Technology by Andrew Breckon and David Prest is the first book in a series which will form a new, fully integrated course for pupils of CDT to CSE. It introduces work on graphics, design, materials, technology and techniques of working with materials. The material is presented clearly with plenty of well-labelled, stage-by-stage diagrams.

This course is the first to recognise the need for central material which pupils can realistically use but which will be flexible enough to act as a resource in a wide variety of circumstances.

Introducing Craft, Design and Technology is co-published with **Master TV**. The authors are advisers to the "Craft, Design and Technology" series.

Please send me an inspection copy of **Introducing Craft, Design and Technology** by Andrew Breckon and David Prest, price £3.25. 09 149541 5

Name: _____
School: _____
Address: _____

To: **Rob Osborne, Hutchinson Education, Freeport 5, London W16 4QZ.**

Off to a good start - or how

A thematic approach in design work and its application towards providing a method of integrating the areas of Craft, Design and Technology as a basis for teaching Third Year pupils in Secondary Education (age ranges 12-14).

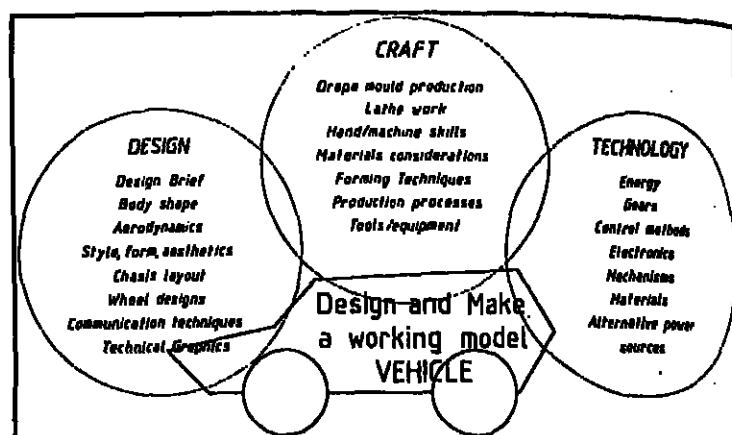
The pungent smell of machine oil mingled with disinfectant pervades the workshop air. Lathe stands gleaming, a little worse for wear but devoid of swarf and bits of metal. Floors and benches swept clean, tool cupboards, racks full, vacant places replenished with sharpened dividers and scribers. Files, try squares, callipers, all colour-coded with fresh paint.

Another school year and the beginnings of a new term: the noise of third years lining-up in the corridor cracks the atmosphere, eager, expectant, demanding bodies push and jostle - abilities, emotions, sexes, all mixed up in groups of 21.

Finding a project, problem, need, situation, design brief, whatever we call it that involves a total CDT concept and experience is difficult. No, you may say, it's easy - just set a design problem such as design and make a small hammer, box, egg-holder, toothbrush rack and so on. Good old standbys, never fails, grabs their interest, teaches skills, functional end product - "Something to show Mum and Dad". But ask yourself is it CDT?

I would suggest that producing a design problem that is stimulating, demanding and relevant to that age group and encourages the development of each pupil's potential, both in cognitive and manipulative skills, and also encompasses the whole essence of what CDT is about, is a challenge for many new and even established teachers.

Probably one of the main reasons for this is what I call "The Great Technological Syndrome".



A THEMATIC APPROACH TO CDT.
Methods of Transport - Materials in Action

The T in CDT

Recent developments in CDT have centred around the growing awareness of technological approaches to design work. The DES publication, *Technology in Schools*, provides some indication of this along with the perennial reports and working papers of the NCST.

But how many departments in schools are structured, geared up, or pneumatically controlled for this modulated, electrically stimulated, micro-organic computerized experience?

Perhaps we are in danger of polarizing the subject and alienating the various interested bodies, so that in fact at one end of the spectrum we have craft design-based curriculum and at the other design technology. A more pragmatic emphasis placed on D and T as highlighted in *Technology in Schools*, where headmasters that were questioned saw new technology

courses being more desirable academically, socially and financially than the traditional workshop activities.

There appears to be some dissonance between certain groups representing what might be described "main stream" design education and certain elements of the technology lobby. In some respects what I had intended to describe has been preempted by an article in *The TES* "CDT Extra" of October 23 1981 by Paul Griffiths, a lecturer at Avery Hill College.

In this article Mr Griffiths referred to a "type of partnership" which has resulted in a "tunnel-vision" mentality in which the individuals concerned were unable to see the total spectrum of creative activity, and were blighted by their own particular specialisms and prejudices.

Certainly, I recognize that polarities exist and it seems that they have been vocalized with increasing determina-

space shuttle, Concorde to Leonardo da Vinci's drawings of helicopters. Methods of power. Steam engines, electricity, wind, nuclear, solar and so on.

(b) 3D - Display on materials and different methods of forming, e.g. plastics, metals, wood (types of forming methods: drape moulding, injection moulding, blow moulding, appropriate shapes of manufactured objects, e.g. old vacuum cleaner, record player

deck, lamp fittings, parts of vehicles, bits and pieces of engines, electrical components, household objects.

(c) This display is set up to provide a stimulating and interesting area whereby pupils can examine and relate to the various information media. Communication ideas, needs INPUT both visually and in a tactile way in order to germinate the seed of an idea in a child's imagination.

MAIN THEME
TRANSPORT - METHODS OF TRAVEL
Secondary Themes - Materials in Action

STAGE 1 (CDT) INPUT Visual Stimulus for generating ideas
(a) Display articles, cardboard replicas, articulated lorry with theme titles as logos. Posters, magazine cuttings, manufacturers handouts and brochures. Visual stimulus on past/present modes of transport, e.g. traction engines to

STAGE 2 (DESIGN) - DESIGN BRIEF
A Logical Approach to Designing
(a) Introductory talk/lecture to 2-3 groups of mixed ability boys and girls. 21 maximum in each group. Slides on methods and modes of transport - cars, lorries, boats, hovercraft, swamp buggies. Means of motivation - energy/power requirements.

(b) Problem - Design and make a model vehicle that can move over either land or water. It should be powered by electric motor that is a minimum of 1.5 volts and does not exceed 6

volts. Alternative power sources may be considered in consultation with staff.

(c) Design Process - recapitulation on first and second year Design Approaches, see handout on Design sheet.

(d) A more sophisticated approach is introduced, overheads plus handout on the Design Process and a simple analysis of the brief is part of the task.

(e) Individual group work/Brainstorming
Land Water

cars, lorries, tanks, trains etc.
(f) Home Works - Underline what you consider to be the main words of the design brief and write one or two sentences about each one. Also, research and find and draw any pictures about the type of vehicle you may want to design - see handout No. 1 of one third year boy's initial design sheets.

STAGE 3 (DESIGN)
Methods of Communicating your ideas

(a) Groups are brought together in a technical drawing room and given a talk/lecture by the member of staff in charge of Graphics who explains and demonstrates the various ways of illustrating and communicating ideas. These include models and mock-ups in various materials, free hand sketches, cardboard cut outs, T.D., paintings and illustrations. He goes on to talk about 'style', 'form', 'shape' and 'basic aesthetics'.

(b) Pupils are returned to individual groups and allowed a period of exploring different methods of communicating ideas and the handling of medium associated with these methods.

(c) Home Works - Design your vehicle shape and present your ideas in any way you have been shown in lessons but you must include at least one page of



EXTRA

to put the "T" into CDT

By Paul Burton

tion in some quarters. This is to be regretted, as it is contrary to the whole direction and spirit of the recent developments in CDT. The formation of design departments and faculties has produced cooperative attitudes between the various interested parties associated with design activities, such as art, some sciences, and maths departments.

In a recent address to the National Association for Design Education, the chairman, Phil Mason, said that in Bedfordshire, where he teaches, almost all of the curriculum development eggs have been firmly placed in the technology-basket.

I am very sympathetic with his thinking when he goes on to say that his experiences in this area have shown that the enthusiasm and inventiveness brought to this aspect of the design continuum are no less than in any other facet. Certainly, as he put it, many able pupils, in schools where there is no common core, have remained in design activity through technology who would previously have been lost in the option lottery.

But, how do schools who are design craft-orientated begin to introduce technology, and what kind?

Over four years ago I found myself in a similar situation. What follows is an outline of a stage-by-stage approach and a teaching strategy that is employed by members of my department and has been developed over four years. It is a thematic approach based upon "Transport" and has been devised to integrate the subject areas of CDT in a total experience for third-year pupils, providing a "vehicle" (unintentional pun) in which to involve technology to a reasonable level.

My intention is not to provide just a Reader's Digest type guide, but to offer an approach that can be analysed, evaluated and possibly adopted and refined by other schools.

THIRD YEAR

THE DESIGN PROCESS and DESIGN CONSIDERATIONS

Definition: "A goal directed, problem solving activity" - LB Archer.
"The conscious effort to impose meaningful order" - V Papanek.

Design covers almost every aspect of our lives, from Christmas cards to cars. It is essential that you realize from a very early stage that designers do not simply dream up ideas; their designs are arrived at as a result of a great deal of work. It is essential that you realize that a designer can not work without data and this is derived from a basic knowledge of materials, processes and techniques. To build up your own data you should make a point throughout the course of collecting any information which may be useful. This information should be stored in either your DESIGN FOLDER or TECHNOLOGY FOLDER.

Most design work is carried out in a systematic and logical manner with each phase of the work dependent on previous decisions/assumptions and designer has made. The designer must also look at a variety of solutions to the problem before finalising his design.

Below is a logical approach for the designer to work through:

PROBLEM or DESIGN BRIEF
ANALYSIS (Research: Evaluation of problem)
IDEAS (Creative Thinking)
SELECTION and REJECTION (Decision Making)
DEVELOPMENT and SYNTHESIS (Mock-up Models)
REALISATION (Production)
ASSESSMENT (Does it satisfy the brief?)

When designing, the designer must take a great number of factors into consideration. The following consideration are not always applicable, but most have relevance to the majority of design problems. This is not an exhaustive list; please add other points as you discover them.
Proportion, Size, Market, Function, Form, Shape, Ergonomics, Appearance, Aesthetics, Finish, Quality, Quantity, Storage, Adaptability, Style, Production, Manufacture, Materials, Reliability, Safety, Environment, Cost.

Techniques useful to the designer: Sketching - Perspective - Isometric Orthographic - Use of scrap views - section views - exploded views. Colouring through Crayons - Felt pens - Paint. You must keep all work relating to a design solution, as even rough sketches form an important part of the design.

STAGE 4 (CRAFT) Producing the vehicle bodies

(a) Material 80 x 80 x 250mm. Pine or Hornbeam block (old fence post) is distributed to each class. They then refine their chosen design to accommodate within the size of material (a constraint).

(b) Demonstration on planing, use of *surforma*, marking out procedure. Also a brief explanation is given about desired shapes, height ratios, problems of air pockets in moulding and encountering difficult grain structures.

(c) A rough outline of their idea is drawn on their wooden block and cut out either by the member of staff using a bandsaw or by the pupils using a jig saw, coping saw or tenon saw.

(d) The shape is developed by using *surforma* and other hand tools and finally finished off with glass paper.

(e) Home Works - Using annotated diagrams write up a Design Log on what you did in lessons and find out information on the tools and equipment you used.

STAGE 5 (CRAFT, TECHNOLOGY) Forming the vehicle body and Research Techniques

After the moulded shape has been formed it is cut out by pupils using a jig saw, coping saw, etc.

(b) Talk/lecture using slides and models given on methods of converting energy into mechanical/electrical motion. Handouts: "Basic Mechanical Movement" such as gears, pulleys, cams, levers.

(c) Talk/lecture on developing and producing wheels, chassis, super structures, slides plus models to be shown as examples.
(d) Home Works - Research on wheels, super structures and mechanical movement for your particular vehicle, e.g. propellers for boats, fans for lawnmowers. (See Photograph

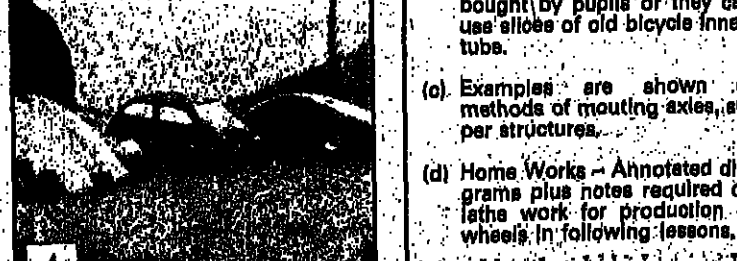
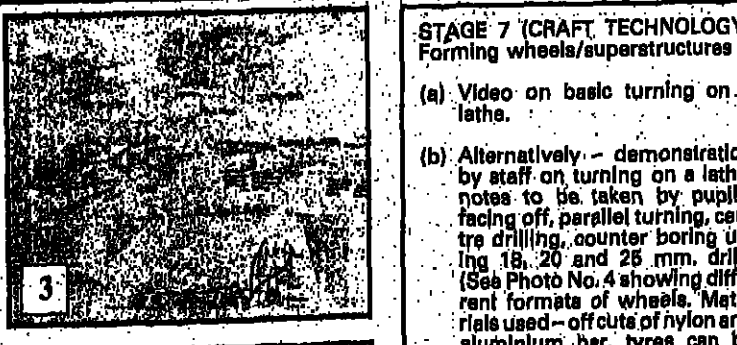
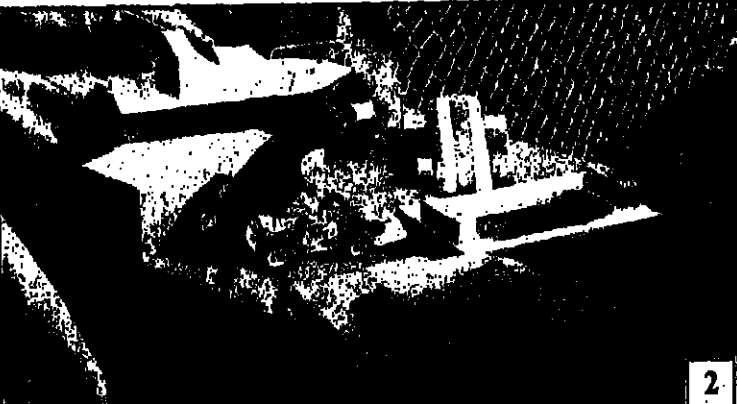
STAGE 6 (CRAFT) Producing the mould and forming the Acrylic body shape

(a) The finished wooden former is used to mark out the profile for the yoke and then mounted on a base board (see Photograph No. 2 showing example of finished mould). Instructions on the sequence of screwing, clearance and pilot holes counterboring, clearances for Acrylic sheet is given by individual members of staff.

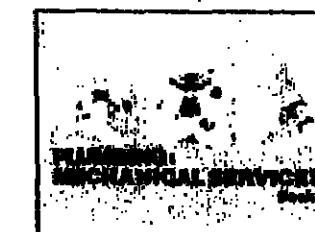
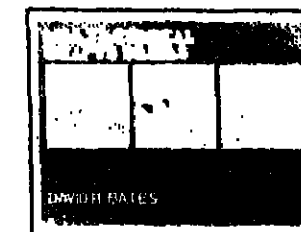
(b) Forming shape in Acrylic, calculations on the size of materials and methods of production is given in a demonstration.

(c) The pupils individually having heated their material in a special oven then proceed to produce their own moulded forms.

(d) Home Works - Design Log, handouts on processes used, annotated diagrams required plus written information.



M&E TECHNICAL CRAFTS SERIES

GENERAL EDITOR:
EDWIN KERRSERIES EDITOR:
LESLIE JAKES

This important new series, the first two titles of which were published in October 1982, aims to provide the apprentice with the fundamental knowledge he needs in order to become proficient in his craft.

Both *Carpentry & Joinery Book 1* and *Plumbing: Mechanical Services Book 1* have been enthusiastically received by teachers and craftsmen alike, and are now recommended to students in numerous colleges throughout the country. Book 2 of each title will shortly be available and will continue to provide basic information in a way which is simple, direct and easy to understand.

Carpentry and Joinery Book 2

D R Bates

Covering the requirements of City and Guilds course 585, the contents include:

Partitions	Windows
Floors	Doors
Roofs	Stairs
Roofs with Hips and Valleys	Portable Powered Hand Tools
Temporary Work	Joinery Fittings
Formwork	Repair and Maintenance
Hoardings and Fences	Solid Geometry
Timber Framed Buildings	

0 7121 0479 8

192 pp

£4.95 approx

Plumbing: Mechanical Services Book 2

G J Blower

Completing coverage of City and Guilds craft course 598 started in Book 1, the contents include:

Mechanical and Special Tools	Sanitary Appliances
Welding and Braying	Sanitary Pipework
Gas Services and Equipment	Eaves and Gutters
Cold Water Services	Underground Drainage
Hot Water Services	Sheet Metal Weatherings

0 7121 1758 7

208 pp approx

£4.95 approx

Teachers and lecturers may send for inspection copies. For these, or a complimentary copy of our Technical and Scientific Studies catalogue, please write to: Dept TE825, Macdonald & Evans, FREEPOST, Plymouth, PL6 2BR (no postage stamp necessary if posted in UK). Telephone 0707 705251.

Macdonald & Evans

Schools Council

MODULAR COURSES IN TECHNOLOGY

The technology course for all secondary schools

- * Options to suit every syllabus
- * Trial tested in over 100 schools

Electronics - Energy Resources - Structures - Mechanisms - Materials Technology - Problem Solving - Pneumatics - Instrumentation

Send for the *Introductory Pack* for each Module (Pupil's Book, Teacher's Guide and Workbook) Available NOW from Oliver & Boyd

Modules to be published 1985

Aeronautics - Electrical Application - Technology and Society

Oliver & Boyd
Room 642
FREEPOST
Edinburgh EH1 0AR



EXTRA

New

Design Resource Books

Nigel Billington and John Jeffery

Many schools will be familiar with the **Design Resource Sheets**, widely used on Art, Craft, Design and Technology courses. The authors have now produced two new arrangements in book format, **Plant Forms** and **Animal Forms**, combining new material with some of the most popular material from the original sheets. **Plant Forms** and **Animal Forms** will also be available in sheet form. Ideal for craft and art students at all levels, they provide a ready and stimulating source of ideas for creative design in almost every field.

Both titles probably £4.95 net (books), £4.95 non-net (sheets)

New

Beginning Graphical Communication

Malcolm Jordan, Bill Hawtin and Alan Neil

A practical introduction, helping pupils to develop the skills of graphical communication and technical drawing, and to appreciate their importance and relevance in everyday life. Probably £3.50

For further details or inspection/approval copies, please write to: Lesley Wilson, Longman Group Limited, FREEPOST, Burnt Mill, Harlow, Essex CM20 1BR ref TES/DRB/BGC

Longman

ALCOSA

WILLIAM ALLDAY & CO. LTD.
Alcosa Works, Stourport-on-Severn,
Worcestershire, DY13 9AP England
Telephone: Stourport (02993) 2311
Telegrams:
Yadall, Stourport-on-Severn
Telex: 335207 Answer Back Alcosa G

HEALTH AND SAFETY
IN THE WORKSHOP AND
LABORATORY

The latest products in the ALCOSA range have been designed to provide a CLEANER - SAFER working environment.

The comprehensive range of Smoke/Fume extraction Units have been specially designed to remove contaminated air as near to the source as possible and the GASGUARD automatic Safety System prevents the gas installation before allowing gas to enter the controlled area.

For further details of these and other products in the ALCOSA range, please return the tear-off portion of this advertisement.

Name

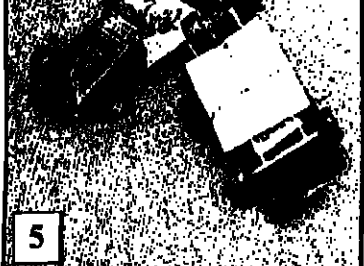
Address

ALCOSA

STAGE 8 (TECHNOLOGY) Chassis Design - Power/Mechanical Movement, Control Techniques, Circuit Diagrams

(a) Chassis design - use of cardboard mockups, development of ideas.

(b) Illustration and examples of possible means of motivation and methods of powering (Photo, No. 6).



STAGE 9 (C.D.T.) Evaluation - Testing, 'Does it Work?'

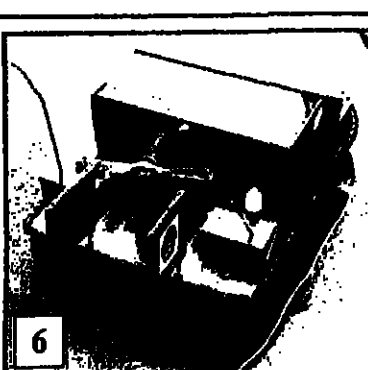
(a) Grand Prix 82 Staff versus Pupils or Who can beat Noddy? (See Photo, No. 8). Also see advertisement on Race details.

(b) A race is held in the Girls' Side Hall which provides not only entertainment but a practical demonstration on what has been achieved by pupils, fun, frolics, frustration. One is surprised at the number of pit



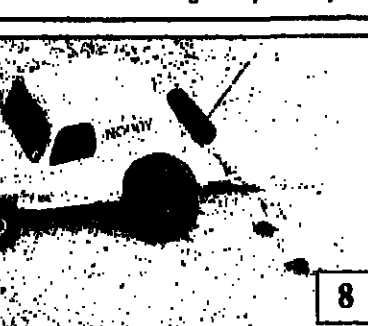
(c) Introduction to simple circuitry and use of circuit diagram, basic electronic theory.

(d) By this stage a more individualistic approach is occurring whereby each pupil is beginning to formulate their own way of answering his/her own requirements to the design problem. Subtle refinements to the basic model become apparent, such as adding accessories, painting and spraying the bodies of their vehicle, transfer, and so on.



stops some cars have to make even at this reduced scale. Technology in action! But not always, minor adjustments of gears, pulleys even elastic bands and of course the inevitable flat batteries!

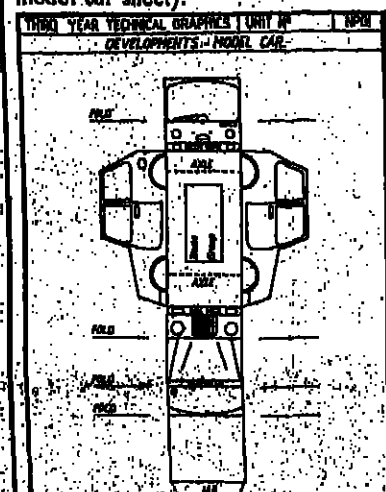
(c) Prizes for originality, body design for boats, cars and any other vehicles, design logs and briefs. However, the record still stands to a member of staff 6.7 seconds for a 10 metre course with a winning entry Noddy.



Integration of subject areas in a department.

The spin-offs from this approach have been extremely valuable. It has strengthened team-work and integration of subjects within the department. For example, one of my colleagues, in charge of technical graphics, has developed and implemented a third-year course based on workshop activities. Pupils begin to see graphics work as both exciting and relevant to what they are producing.

Underlying this approach is the result that pupils are mastering complex draughting and geometrical skills, and laying a good foundation for future work in the fourth and fifth years (see model car sheet).



Another consequence of this approach is that drawing interpretation is a complex activity in itself which some pupils find extremely difficult, but who can now see it related to their own models. Standards of presentation of graphics work has increased both in quantity and quality in the classroom and for homework.

In woodwork, the problem of designing a model vehicle based on the principles of land yachts, has provided both a stimulating and exciting dimension to a traditional craft area. Technology involved here consists of work

on control methods for sails, steering, wind power and gears systems. Extra-curricular clubs in CDT in the department have flourished, providing another outlet for ideas and a chance for pupils to progress at their own speed and level. The main advantage is that these clubs supplement valuable practical lessons which have been used for talks and demonstrations.

Conclusion

Criticism that could be raised on this thematic approach is that it is not CDT, but a glorified 'hobby' based upon design methods. My defence would be in the form of the diagram which illustrates the concepts, skills and technology involved in this project (see diagram of 'model vehicle'). I personally believe that any approach which has the honest intention of imparting the aims and objectives concerned in the CDT subject areas, and transmitting these to pupils, is valid.

Resources

I suppose, like a great many departments in this country, I have the best set of 'scroungers' (meant in the nicest possible way). In a time of recession opportunities abound, many small uncompetitive firms are closing down and these are worth approaching. Pieces of acrylic signs, old bits of card, paper, metal, wood, nylon rod can be salvaged, and it is well worth ferreting out old electrical equipment and machinery.

Another source of material which can supplement a department's capital is the firms who actually pay for the removal of waste material. They are usually only too glad for a school to do the job for nothing. The school minibus finds another use rather than just transporting sports teams.

Perhaps we are lucky in being situated in a comparatively industrial area, but anywhere and anyone is a potential source.

Finally, many leading companies associated with the transport industry can provide a wealth of information, ranging from pamphlets, brochures, slides, photographs and technical information, and they are usually only

rent, such as adding accessories, painting and spraying the bodies of their vehicle, transfer, and so on.

(e) See Photos. Nos. 6 and 7.

(f) Home Works - Design Logs, circuit diagrams, use of simple electric motors and other methods of motivation.



STAGE 10 (C.D.T.) Evaluation - Testing, 'Does it Work?'

(a) Grand Prix 82 Staff versus Pupils or Who can beat Noddy? (See Photo, No. 8). Also see advertisement on Race details.

(b) A race is held in the Girls' Side Hall which provides not only entertainment but a practical demonstration on what has been achieved by pupils, fun, frolics, frustration. One is surprised at the number of pit



too willing to assist, e.g. BP, Castrol, Lucas, BL, Ford, Chrysler, Vauxhall, Rolls Royce, British Airways, London Transport and Volvo.

So - Le Mans, Brands Hatch and Silverstone - watch out! At The Heathlands we're off to a good start.

References

Barnes, D. 'CDT in the Secondary School - What They Have to Offer' Burton, P. D. Skills in A. Thematic Approach to CDT' Schools Council Skills For Adult Working Life, A Programme Three Activity: (1983) Design Education Supplement Engineering May 1979, page 15 The Design Process and Design Consideration derives from material distributed at the Developments in CDT 1981 personally believe that any approach which has the honest intention of imparting the aims and objectives concerned in the CDT subject areas, and transmitting these to pupils, is valid.

Technology in Schools DES London 1982

'Where Technology Stands' CDT News Extra Edition for a CDT 82

Griffiths, P. 'A Question of Aim' TES, October 81

Nicholson, B. 'Times are Changing' The Stanley Link No. 8 October 81, pages 3 & 4

Mason P. Chairman's Address National Association of Design Education, 7 November 81

Bibliography Aylward, B. (ed.) Design Education in Schools London: Evans Brothers Ltd. 1975

Bulman, A. D. Model Making for the Young Physicist Proof copy London: John Murray 1980

DES Technology in Schools London: 1982

Evans, F. 'Models for Teaching Engineering Design Education' 1981 pages 2-6

Flood, J. 'Modelling Through Designing' Autumn 1982 page 10

London: Design Council

Marshall, A. R. (ed.) School Technology in Action London: English University Press Ltd 1974

EXTRA

More than half way there

John Catton and Peter Toft outline one positive strategy for encouraging girls to succeed in CDT

Despite current trends towards equality of opportunity in schools, CDT remains an almost exclusively male preserve. To redress this imbalance, the Girls into Science and Technology (GIST) project was established at Manchester Polytechnic. Working closely with CDT teachers, the project team attempted to counter the influences of sex stereotyping on the option choices of girls.

It included visits to CDT lessons by craftswomen and women technologists, technology clubs for girls only, observation of lessons and the production of a tape-slide pack, entitled *Why CDT?*. About 2,000 pupils who entered 10 co-educational comprehensive schools in Greater Manchester in September 1980 were involved.

One of the schools the Abraham Moss High School, an integral part of the North Manchester College, is a large bustling education complex embracing a college of further education, district library, leisure centre, club, residential wing and extensive community facilities, and is used by more than 10,000 people each week. CDT is an important part of its curriculum, is taught on progressive lines, and has access to the expertise and facilities of the college's post-16 art and design, engineering and micro-technology sections.

When the school's pupils involved in the project reached the end of their second year, they were given the usual school crafts 'mini-option' and invited to select any two areas from the four being offered by the CDT and home economics departments for more concentrated study in their third year. Previously, only one or two girls had taken CDT in the fourth and fifth years. The GIST team felt it was unwise to offer such a choice at an age when the development of their femininity or masculinity is so important to young people, and they are under considerable pressure to select on the basis of their sex. But at the time, however, the Manchester comprehensive schools were undergoing reorganization and the school staff did not wish to make things worse by making such a curriculum development at that time.

In the event, about 20 girls opted to continue with CDT and they were deliberately grouped together for third-year lessons. This was a significant improvement on previous years and the staff were keen to maintain the girls' interest in the subject. To do so we decided to take the girls out of school to meet women who were clearly successful in CDT. The 3D design department in the Faculty of Art and Design at Manchester Polytechnic, used by many women students, provided just the right blend of activity and excitement to interest the girls.

To prepare the ground at the polytechnic we discussed the reasons for positive discrimination and the department accepted the need to involve girls in such visits without the often inhibiting presence of the boys. They appreciated too that unless such courses are specifically brought to the attention of girls, few will consider the possibilities of a technically-based career.

At the college John Doyle, lecturer in product design, emphasized the importance of design awareness and referred to the girls' school CDT work. Commenting on a major project of a third-year woman student, the girls said such things as 'I could never do that to save my life'. Which drew the response that they could if they were shown the techniques involved.

Later, on they visited wood/metal/ceramics studios and were soon absorbed in the activity. There was a high proportion of women students in the studio to whom the girls chatted easily. They were particularly interested in work in titanium and much amused by 'funny face' mirrors and moving faces, incorporating simple mechanisms, in wood.

The dramatic highlight for most, however, was the experience of seeing

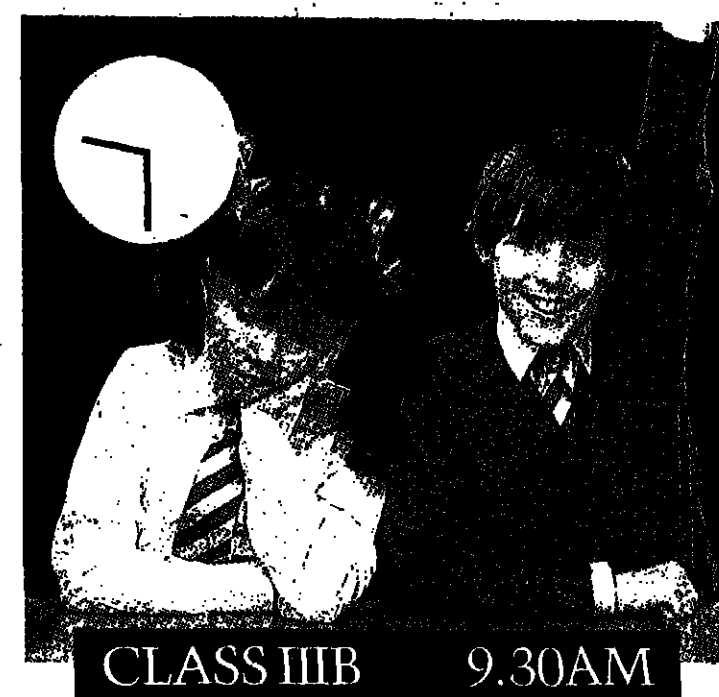
a ball of molten glass being skillfully blown into shape. However we should have discussed its purpose more fully with the interior design staff which would have made it of more interest to the girls. We concluded that any future trip would need to be as relevant, active and visually stimulating as the workshop session had been.

This was followed by a discussion, led by four women students which

revealed questions both naive and shrewd. The answers were clear and unequivocal and this contact with successful women left a strong impression with the girls.

About six months after the visit one of the girls was interviewed by a member of the GIST team in a sample of girls from the school who had opted for CDT in the fourth year. One reason the girl gave for continuing was that she had been on a visit to the Art and Design Faculty at Manchester Polytechnic and had been inspired to aim for a career in design.

John Catton was the GIST schools liaison officer for CDT and is now deputy head at Buxton Girls' School. Peter Toft is a senior teacher at the North Manchester College.

WHAT IS A CENTRIFUGE?
WHY DOES THAT GEAR TURN?
HOW DOES A WINDSCREEN
WIPER WORK?

Reasonable questions. Requiring answers. Answers which you can help children discover for themselves. Answers which fire the imagination and stimulate the enthusiasm to learn more.

New LEGO® Technical Functions 1 supply these answers. Each kit, which is designed for use by a group of two or three children, contains one hundred and seventy-nine elements and twenty full colour work cards. Centrifuges, gearing, pulleys and steering systems - these are just some of the principles which LEGO Technical Functions 1 demonstrate - simply and memorably.

And all in the space of one classroom period. Each kit comes complete - the moulded plastic tray provides a compact workbench, and the clear flip-up lid holds the twenty work cards in place. Teacher's instructions are supplied, so you have all the components you need for fascinating lessons. Fill in the coupon and let us prove it to you - with a FREE sample.

NEW LEGO® TECHNICAL FUNCTIONS 1

LEGO

© 1982 LEGO Group
© The LEGO logo is a registered trademark.

EXTRA

Pass along the bus, please

Susan Thomas reports on Bedfordshire's technology buses

Strange isn't it? While Manchester calculates the severity of its sewer collapses in "double decker buses" - four DDBs is a really big one - Bedfordshire uses the same unit for technical education. DDBs, SDBs (single DBs) and BUTs (back-up trailer units). To date, it has two DDBs, three SDBs and five new BUTs.

"By the autumn of 1984," says Ron Denny, Bedford's CDT Inspector "every secondary school in the county will be offering technology." And it won't be string and ceiling wax stuff either - for the dynamic Mr Denny is a stickler for style.

Thanks to the Bedfordshire Technology Unit's spectacular marriage with industry, the schools have crisp new tools and equipment, safe CDT areas and an elite corps of inspired, informed (and frequently exhausted) advisory teachers who urge everyone - staff, heads, pupils and managers - on to even greater things.

As a result, nearly 3,000 pupils will sit technology exams next June, local industry is falling over itself to recruit school-leavers with O level technology, the universities are recognizing the subject as an alternative to physics for engineering and every one of the A level students has been offered sponsorship through university.

"School-leavers with the level of skill and knowledge that your courses are providing will be of great value to industry" wrote Austin Rover's chief training officer. "We are very keen on

seeing (your) 18-year-old A level leavers with a view to sponsorship." And to show their appreciation they promptly provided two shiny new Austin Ambassador cars to tow the trailers.

The secret of Bedford's success is simple - mobility, flexibility and a radical approach to the problem of sharing too few resources, both material and intellectual, between too many rooky people.

They have solved it by pooling and centralizing costly but little used equipment, using buses to bring technology to the schools for a limited period each week, persuading industry to donate money or materials and by an intensive training and retraining programme for teachers.

The technology buses, sleekly white and professional in the county's livery, are a familiar sight on the country roads. At present, there are three in service - one double and one single decker A level bus and double decker middle school bus. Equipped with gas, pressurized air and water and electrical trunking, they simply drive on to the playground plug in to the school's electricity supply and the mobile classrooms/workshops are ready for action.

Soon two more buses, part of the Government's TVI - Technical Vocational Initiative - will be on the road bringing technology and business skills to more Bedfordshire pupils.

The A level buses have specialist roles. One carries pneumatics and

hydraulics equipment. The other caters for work in mechanisms. Both are equipped for electronics. Between them they carry 26 BBC computers. They have the facilities to enable students to work on their A level computer-controlled hydraulic, pneumatic or electronic projects, robotic arms for fume cupboards, devices to project tennis balls and cardboard clocks (accurate to within four seconds a week in good conditions - an absence of matches no doubt).

The younger children (9 to 14-year-olds) enjoy the same facilities but less so. They, too, have power, air and water on tap, so to speak, access to computers, mini lathes, workbenches and vacuum forming machines. John Barber, driver and teacher of the middle school DDB, explained the system to me.

He teaches a five day, 10 school week. And the class teacher, time-tabled onto the bus with him, shares the teaching and updates his own skills and knowledge at the same time. The middle school bus reaches a quarter of the country's schools - the A level buses are available to every sixth-form whether in school or a separate college.

The children start off with easy mechanical problems using Fischer-Technik, move onto pneumatics and hydraulics experiments and then to circuiting. "They design their own printed circuit up here, take it downstairs to develop it in the bubble etching bath, bring it back drill it, fit the components and solder them in place."

When they have made up a design they produce a plastic casing with the vacuum forming machine. Favourite projects are simple alarms, hazard warning lights and transistor testers. What the 13 and 14-year-olds were doing two years ago - the 13 and 14-year-olds are now.

Materials for these projects rarely exceed £1.50. But the equipping of these buses must run into thousands. This is where industrial sponsorship comes in. Open the craftsman-made cupboard, slide out the fitting shelves and every inch of space is used for tools: components, drawing instruments, all beautifully displayed and all bearing the manufacturers logo. Rotring, Stanley, Fischer-Technik. Every

time the TV cameras explore the new teaching environment, and they do, the supporting firms get free publicity. "As it should be," says Chris Weaver, driver of the A level SDB and creator of the county's superb hydraulic logic and circuiting teaching boards. "In education we're always begging from industry - it's nice to be able to give something back. When Vento decided to market the teaching boards it gave me a tremendous sense of satisfaction - first it meant that they would be generally available for



Where technology is part of the core curriculum the majority of girls are enthusiastic.

education and up till now there had been nothing we could afford - and secondly, their kindness and help has led to more business for a small company."

Bedfordshire technology is deeply indebted to industry. Not only has it helped fund the five buses but also the six resource trailers. Large enough for six people to work in at a time, they are primarily intended as back up units for school technology departments.

Some of the trailers are equipped with wheel-out units, each one a self-sufficient source of working space, power, tools and teaching equipment. Others are more like mobile prep

rooms. Each trailer is emblazoned with the name of the company which sponsors it and each one has its own speciality.

There is the John Willmot "materials trailer"; the Griffin and George "structures" trailer; the Rotring trailer; the Vento Solinoid and Kay pneumatic trailer; the HAI computer-aided design trailer and perhaps the most significant of all, the Flametech trailer. "Flametech have produced the wheel out benches," says Chris Weaver, "this may be the answer to the problem of educational technology in the Third World" said Mike Hopkinson, longest driving advisor in the team. "The problems of teaching technology in a poor country are almost unimaginable; with this sort of equipment it becomes a possibility."

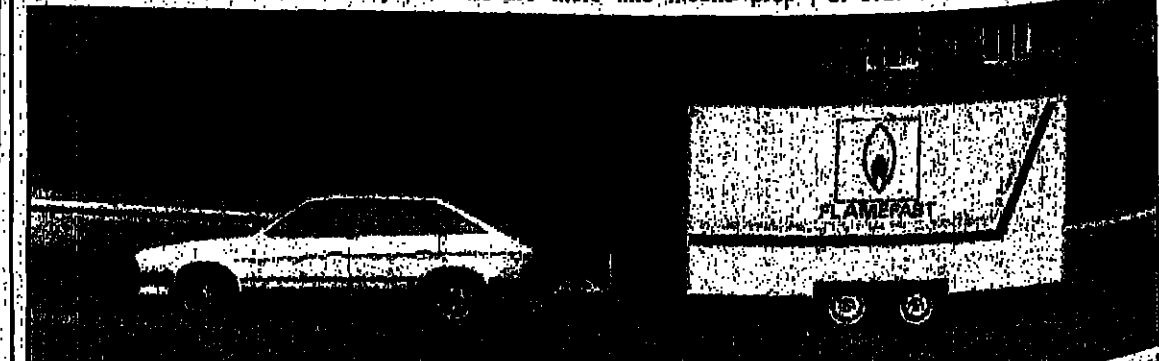
There are a lot of lessons to be learned from Bedfordshire's initiative. One of the biggest is that everyone, and almost everyone, enjoys problem-solving technology where it is taught the right way.

"Come up here one day," said Ron Denny, indicating the neat, bright upper-deck of the middle school DDB, "and there were three teachers, the head, a couple of managers and a dozen kids, all with their heads down, so engrossed in what they were doing they didn't even notice my arrival. They love it," he said with delight.

"It is enthusiasm which kept the technology team working a 70-hour week for the first two years, without which causes heads who are classicists or historians to write you a badger for school based technology. Inset, enthusiasm which keeps the students in school for hours after school working on their projects."

"You asked me if the buses would eventually work themselves out of a job," said Denny "they never will because they will remain at the sharp end of modern technology, constantly updating education - to keep pace with the country's needs - there'll always be a place for them."

If you are quick off the mark you may be able to catch up with the Bedford Technology Unit Road Show (what else?) at Wembley this month at the East of England Show or passing through on their way to talk to industry, the universities, the Department of Trade and Industry.



EXTRA

The essential relationship

Philip Mason on the place and potential of design education

In an article entitled "The Design and Fall of Britain" (TES, April 29) Rick Rogers presented a critical appraisal of the state of design in contemporary general education. Having read Rogers' account the casual reader may well have formed the opinion that design education is in a state of crisis: that it has been emphasizing the wrong content, that it is undervalued in a curriculum which is still academically orientated and that it is severely understaffed.

The bad press which design education has received recently has stemmed almost totally from the now well documented seminar held at 10 Downing Street in January 1982. This resulted in a statement by the Prime Minister which Rogers describes as "a devastating indictment of design education in schools".

The burden of Mrs Thatcher's summing up was that: "Design is too often taught in secondary schools as an art subject and rarely as it should be, as a practical, problem-solving discipline". This, she maintained, was the reason for its low status, dismal recognition by employers and higher education, and the limited scope of the subject in schools.

It is acknowledged that design education as an educational activity is still in a formative period of development and that over a relatively short length of time teachers of practical disciplines have had to rethink their philosophy and practice in order to make their subjects more relevant to modern needs. But it would be a mistake to lose sight of the achievements of this period.

It is significant that people from a variety of backgrounds should want to debate and discuss design and practical learning in the school curriculum. This is hardly a situation one could have conceived even a few years ago. What was a concern of educationists, and practical educationists alone, has now attracted an audience far wider than those concerned with practical learning in schools. Leading figures in public life, academics and industrialists in particular, have begun to perceive the notion that the attitudes and values developed in the design area of the curriculum have importance for life in society and at work. After all, which other curriculum areas have merited a Downing Street seminar?

There appear to be three main aspects to arguments on the value of design education which have formed this trend towards a greater level of recognition. First, there has been a line of thinking that has centred upon an economic case which has been brought into sharp focus by the recession.

Many now think that Britain's lack of competitiveness could be more than the result of economic policies and the world market, but might at least in part, be attributed to attitudes and values fostered in the British educational system. This has failed to engender positive thinking towards productive effort, but has encouraged an ethos hostile to careers in the industrial sector. The sentiments

of this line of thinking have found most vocal expression in the "education for capability" movement.

A second part of the trend has viewed human learning more broadly than the "two cultures" perception of the arts and science curriculum. Arguments now point to a third area, as yet under-developed in the academic world, but which forms an important element of man's humanity. This view centres around activity which is expressed in such concepts as doing, constructing, creating, planning, organizing and realizing. These may be encompassed within the generic term design. The DES research project at the Royal College of Art in the mid-1970s "Design in General Education", did much to clarify how this third area complements the arts and sciences. The Design Council's Keith Lucas Report set out guidelines for how this might be implemented in schools.

The third trend has supported the view that design education can become an important social and cultural dimension within the curriculum. As we live in a world in which humanity is increasingly dominated by buildings, systems and products planned by specialists, it is an important aspect of children's development for them to be aware of how their physical surroundings are shaped and how they might respond to their environment.

But what has taken place has been far more than a debate. Design activity is becoming a vital force within the curriculum of many schools. It is not so long since the norm was for the majority of able students to abandon practical learning in the second or third year of the secondary school when options were chosen. Increasingly, there is evidence that schools are incorporating design-based subjects into their common core for all students throughout the statutory years. The lead given by HMI in their 11-16 Working Papers (1978), has been seen by many as a stimulus to a broader curricular approach.

A further area of development has been the increasing recognition of the acceptability of A levels based in design for entrance to degree courses in higher education. Previously, lack of regard by universities and polytechnics checked growth at sixth-form level.

The work of the Design Council in particular, resulted in the recommendation of the Engineering Professors' Conference of 1982 that certain design-based A levels should be

accepted for the general entrance requirement. This has been an important step forward. Although the numbers currently taking design-based A levels is small, the trend is towards growth. (There was an increase in entry of 32 per cent for Oxford "Design and Technology" in 1983). But acceptability as a third A level is only a start and one looks to the future when students with a design-based qualification will be given positive discrimination for relevant degree courses such as engineering, technology or architecture.

One of the most interesting and powerful developments in the area of design education in recent years has been in the field of technology. Many of these courses have adopted a problem-centred approach in which pupils' experience is shaped through tackling projects which require the application of technological concepts and processes to real life situations. In many instances however, technology has grown as an exclusive area of study unrelated to other activities within the design curriculum. It has been suggested that this "bistate growth" was necessary initially for technology to become established, but it is timely that it should now become more closely coordinated with other elements of design departments.

This highlights a particular difficulty in the design education movement. Because design crosses traditional subject boundaries and is essentially interdisciplinary it has lacked a degree of direction and cohesion; this Rogers rightly pointed out in his article. The institutional framework of the school curriculum stems from subject divisions of the past, thus the inoperative, local authority advisers, teacher training, examination panels, etc tend to have responsibility for only part of the design sector. This causes fragmentation.

Because few local authorities have adopted a coordinated design policy for their schools, the trend towards a faculty system has meant that teachers themselves have had to take the responsibility for developing curriculum policy. Also, the design area of the curriculum has lacked the central development projects enjoyed by the humanities and sciences. Development of design/educational policy has, as a result, been patchy in geographical terms.

But on the positive side this has resulted in interesting individual departmental styles giving different mod-

els rather than the homogenization which often results from prepackaged courses. In many schools a common approach in the middle years becomes rigidly separated as students specialize for examination courses in specific aspects of design. It is clearly appropriate that some pupils develop expertise in depth, but for others it is for more relevant for them to have access to a range of media and experiences. In spite of the lead given by the Oxford A

chairmanship of the Design Council Director Keith Grant. No other area of the curriculum can have such a plethora of associations as design subjects.

However, such fragmentation has meant that the design area lacks the powerful voice of other disciplines with one major subject association. It is hoped that current discussions will one day result in the formation of a national body which can articulate design needs among the highest councils.

The lack of coordination across the design curriculum in schools resulting from an historical legacy has produced inconsistencies and it has been this failure to create a holistic vision of the role of design in education which has been brought into focus in the recent discussion. At the Downing Street seminar Mrs Thatcher felt that schools gave too much weight to design as "pure art or taste" and not sufficient emphasis to design as a "practical,



Louise Webb, Manshead Upper School, an entrant to the Rolls-Royce Schools Design Prize with her reading kit for dyslexic children. She features in "...to be an engineer", the second Rolls-Royce programme for schools.

level syllabus in design must examine syllabuses lack breadth. This reinforces fragmentation in design departments and much of the co-operative work in the middle years becomes dissipated.

It is significant that the 16-plus proposals in design were framed from either CDT or art or home economics viewpoints. However, developments taking place in the Midland Regional and Southern CSE Boards and with Cambridge, point to progress in this area.

But one of the most positive signs for future inter-relationships across the design spectrum at institutional level has been the initiation of joint meetings of CADA (Confederation of Art and Design Associations) and CODA (Confederation of Design and Technology Associations) under the

Philip Mason is chairman of the National Association for Design Education.

New from Hodder & Stoughton

Design and Technology

A Yarwood and A H Orme

Design and Technology is not only a stimulating collection of projects and ideas in school technology - it also develops a basic understanding of this expanding subject. Although the book will be found particularly useful by 14-16 year old pupils, it can also be used as an introduction to the subject for sixth form students.

0 340 22875 0
This October, Limp £3.95

Further Graphic Communication

J A Austen

This well-illustrated book aims to develop the ability to communicate information by graphical methods. The work and examples it contains, together with the topics included in *Graphic Communication and Observation*, cover the current CSE, GCE 'O' level and 16+ syllabuses in graphic communication.

0 340 26898 0 Illus. December Limp £2.95

Design Drawing Three

John Rolfe

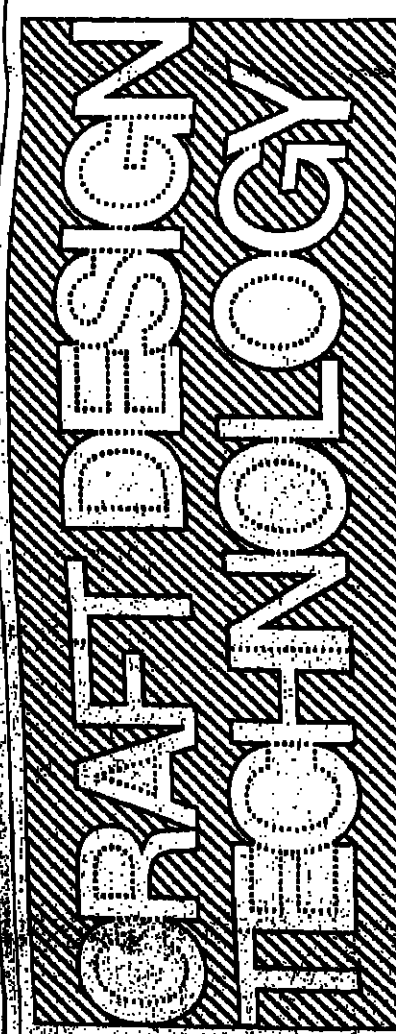
The Design Drawing series presents a novel approach to the teaching of graphic communication and provides a broad basic course for secondary school students. In the third book, the author has developed a number of themes showing that drawings can be based on almost any topic.

0 340 26900 6 Illus. Limp £1.65

Teachers are invited to write for inspection copies, stating school address.

Hodder & Stoughton

Hodder & Stoughton, Dept E1354, FREEPOST, Dunton Green, Sevenoaks, Kent TN13 1YY



- * An exciting new approach for 11-15 year olds.
- * Exploits the Versatility of Pressure-Fax spiritmasters for model making and duplication of single or multiple copies of worksheets.
- * Kit of three 32-page Pressure-Fax spiritmaster books and a Teachers' Guide packaged in a durable slip case.
- * Teachers' Guide includes copyright-free pages for making overhead projector transparencies.
- * Spiritmaster books cover: Craft Skills Engineering Themes Projects.
- * Craft Skill sheets supplement normal teaching of skills and are used for future reference.
- * Engineering Themes include work on printed circuits, bridge building, ergonomics, housing design.
- * Only £34.95 for the complete kit.

Holmes McDougall

Please send on approval Craft Design Technology 0 7157 2183-6

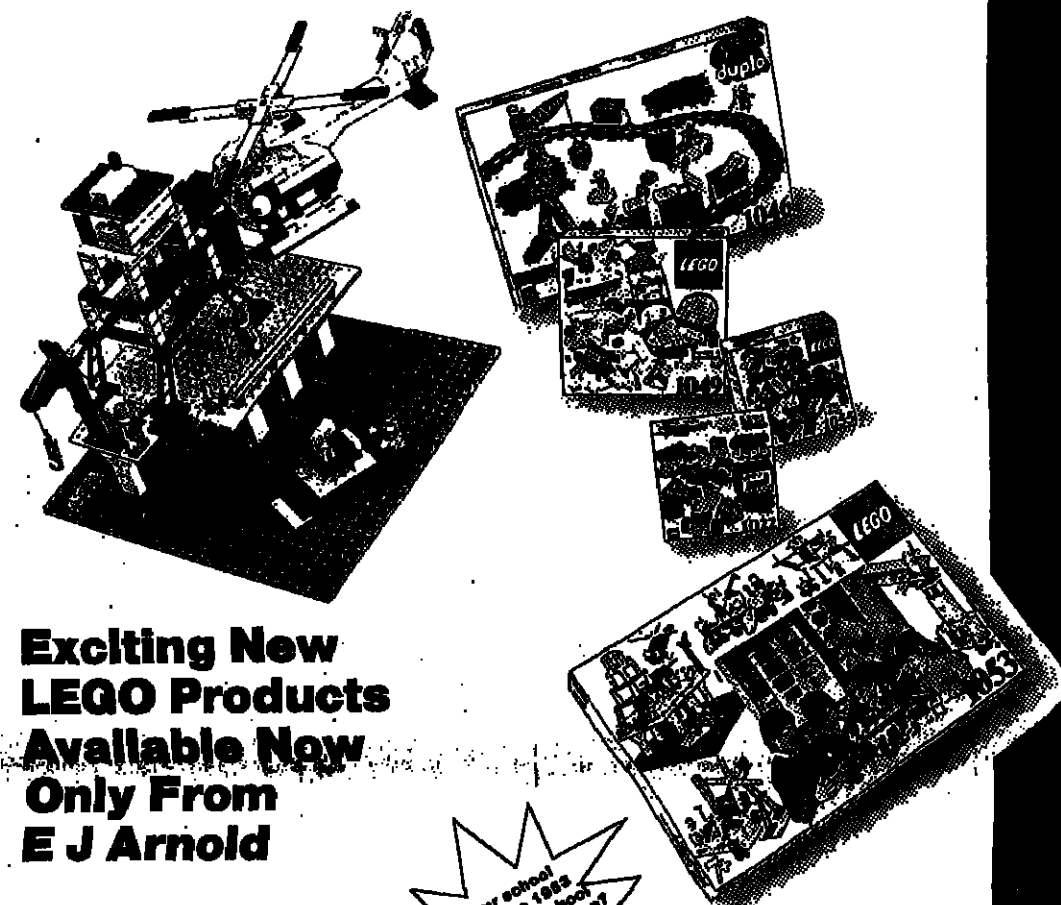
Name _____

School Address _____

Return to Holmes McDougall Ltd., FREEPOST 53, EDINBURGH EH6 0JL. (no stamp required)

LEGO'S CHRISTMAS CRACKERS

E J Arnold



Exciting New LEGO Products Available Now Only From E J Arnold

Five super new sets from LEGO's 1984 Educational Range, not yet available in the shops or from any other educational supplier. Send us your order now, and we will guarantee pre-Christmas delivery, if we receive it before 9 December 1983. This fantastic offer is open to everyone.

DUPLO Train Set
A very first train set, compatible with all your existing DUPLO Bricks.

LEGO Ships
Let junior shipbuilders, construct their own boats which really float!

LEGO Mini Basic Set
An inexpensive yet comprehensive set of basic LEGO components.

DUPLO Mini Basic Set
The ideal inexpensive starter set to a playgroup collection.

LEGO Project Set
The new transitional set between the scientific world of LEGO Technic and the ever popular world of LEGO Building.

Send your order to the E J Arnold LEGO Competition. Please send me the following new LEGO items. I enclose a cheque for £

Name	Qty.	Price £	Value
KH28 LEGO Project Set		38.75	
KT16 DUPLO Train Set		27.95	
KT19 LEGO Ships		21.75	
KT14 DUPLO Mini Basic Set		10.95	
KT14 LEGO Mini Basic Set		10.95	
Total Value			

Prices are INCLUSIVE of VAT. Send your order to Ian Smith, E J Arnold & Son Limited, Parkside Lane, Dewsbury Road, Leeds LS11 5TD. ENCLOSING NAME AND DELIVERY ADDRESS.

Please allow 28 days for delivery.

EXTRA



Technological and industrial studies is an important component of the Hons. BSc degree for all students at Avery Hill.

Cooperation or conflict?

continued from page 39

of technology which has relevance in a modern industry. By involving the professionals from industry with pupils' work in school then the whole area of CDT can become enriched. This approach is of course not only valid for CDT but every other subject. This way pupils of all abilities may become interested in commercial design and production and may decide to pursue careers in engineering, technology or the design area, which in the long term will erode further the prejudices which have for so long denigrated these professions.

The answer is not to select only lower ability pupils for industrial liaison programmes with the hope that these programmes will engender motivation, leaving the more able to pursue the traditional subjects required for matriculation purposes. Such an approach will only perpetuate prejudices which exist against able pupils pursuing careers in industry.

The difficulty is, we have a set of social attitudes which reflect the Platonic model outlined earlier and until there is a wholesale change of these attitudes towards the acceptance of industry as an essential aspect of our society and the corresponding necessity to educate all pupils for life and work within it, then the attainment of the educational ideals I have described remains difficult.

There is, however, evidence that we are starting to take these issues seriously. The existence of a range of initiatives designed to promote greater understanding of the relationship which might exist between education and industry. These include the Schools Council Industry Project, funded by the Department of Industry of various education projects demonstrates industry's willingness to be involved, their magazine View published quarterly provides a source of ideas and encouragement for contacts be-

tween the two areas. School Technology Forum currently has a working party looking at the area of training skills. Teacher secondments to industry are providing an opportunity of first hand experience for many teachers, and movements such as Education for Capability provide the necessary philosophical support.

These initiatives are being accompanied by courses of initial teacher education providing students with industrial experience. It is important to emphasize that this experience is supported by and seen as an integral part of a college-based course dealing with the preparation of students for the placement and evaluation following it.

Also important is a staff development policy which ensures that lecturing staff are themselves acquainted with the important issues and where possible have first hand experience of liaison and working with industry.

In a way that is perhaps most heartening is that a new generation of sixth-formers are recognizing that change in social attitudes towards industrial status is long overdue. Jennie Roberts - one of the winners of the Observer Whitbread National Essay Awards - writing on the question of whether education has done enough to prepare pupils for work or make them aware of the role of industry, sums it up:

"The traditional schools' curriculum continues to recognize a first in classes from Oxford as the ultimate achievement. In Germany by contrast it is considered socially desirable for a gifted child to go on to get the highest level of technical qualification. It is these people who have created their industrial success story. It is in my view absolutely critical that the educational establishment adopt a radical attitude geared towards industrial and commercial activity."

Paul Griffiths is head of design and technology and coordinator of technological and industrial studies at Avery Hill College, London, where a new B. Ed Honours degree which includes Technological and Industrial Studies has just started.

Solutions

Introducing Craft, Design and Technology. By A Breckon and D Prest. Thames/Hutchinson 0.09 1495415

"Wherever there are people, there are problems needing solutions." For me, this is the quote of the week and it comes not from the educational psychologist or from the social worker's notebook. It comes from a book which sets out to solve the problem of teaching design in context of Craft, Design and Technology which has largely replaced the traditional subjects of wood and metalwork in the curriculum.

Starting with the way the natural world has evolved solutions to the problem of bird eating habits and seed dispersal, there is a look at the methods used by Leonardo da Vinci before the stages in designing are fully covered.

Drawing techniques, presentation and considerations of line, shape and form, texture and colour are followed by sections on balance and proportion, pattern, movement and style. Throughout the text and illustrations complement each other with a great

deal of humour in the drawings while photographs supplement these in a way which must help the student be aware of things in the environment which will help the young designer.

The second half of the book deals with the technology necessary for the realization of design and as with the previous sections, the topics are well set out. Structures, electronics, mechanisms and the use of energy are sympathetically covered. Inevitably the subject areas are dealt with at a basic level but the treatment is not superficial. Students who learn the facts as set out here will be able to gain more specialized books for further development as the need arises. This book gives enough sound information with which to start.

When the authors come to deal with tool and material handling skills, I found the way in which the same materials were treated in the same way helpful, it is right in the mind-mechanics situation that a common approach developed even though specialized tools will be needed at times. Again, basic technology is clearly explained in text and diagram. At the end of the book, 24 design briefs are suggested forming a useful programme of work for several years in the secondary school using a variety of materials.

Ted Heaton

THE TIMES EDUCATIONAL SUPPLEMENT 7.10.83

PRIMARY EDUCATION

continued

BROMLEY
LONDON BOROUGH OF
BROMLEY PRIMARY
Anley Road, Anley.
Local 820 82X
Head Teacher, Group 5.
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Anley Junior School and Anley Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Anley Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Bromley, Kent BR1 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

CAMBRIDGESHIRE
BOTTISHAM COUNTY
PRIMARY SCHOOL
Applications are invited for the HEADSHIP Group 1. The successful candidate will be required to teach in the amalgamation of Bottisham Junior School and Bottisham Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Bottisham Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Bottisham, Cambs CB24 4JL (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

HUMBERSIDE
EDUCATION COMMITTEE
REQUIRED FOR JANUARY 1984
For as soon as possible

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (I) SCHOOL
Group 2
Head Teacher - Group 2
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

SEABRIGHT (JM) SCHOOL
Group 5
Head Teacher - Group 5
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the amalgamation of Seabright Junior School and Seabright Junior School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Seabright Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Seabright, Humberside HU10 1SS (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

EAST SUSSEX

Please see composite advertisement on Page 61. (18248) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

LANCASHIRE
COUNTY COUNCIL
AN EQUAL OPPORTUNITIES EMPLOYER
EDUCATION DEPARTMENT
BALSHAW LAKE COUNTY
Buxton, Cheshire
(460 on Roll)
1st May, 1984 or earlier
TEACHER - GROUP 5
For application form and details to whom contact should be made, please apply to the Chief Education Officer, Preston P1 8R1.
Closing date: 20th October, 1983. (5860) 110010

NORTHAMPTONSHIRE

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at present and an application will be made to the Education Committee for Newton Road Primary School to be similarly designated. If the application is approved, an appropriate allowance will be payable to the successful candidate.
Application forms and further details available from the Director of Education, The Town Hall, Newton Road, Rushworth, Northants NN10 0JH (foolscap s.a.s. please). When completed forms should be returned by 21st October, 1983. (5860) 110010

NEWTON ROAD INFANT SCHOOL
Newton Road, Rushworth, Northants NN10 0JH
HEAD TEACHER GROUP 4
Required for January 1984. The successful candidate will be required to teach in the amalgamation of Newton Road Infant School and Newton Road Infant School in September 1984. Both of these schools are designated Social Priority schools at

SECONDARY SCHOOLS

DESIGN AND TECHNOLOGY

MARTIN KYNASTON (SM)
Marlborough Hill, NW8 0NL
Tel: 01-722 8141
Roll: 1,060
Acting Headteacher: L. Goodhead
Required from January 1984 an enthusiastic teacher, Scale 2. A particular interest in Design and Technology is desirable. All students take Design and Technology in years 1-3 and examination courses in years 4, 5 and 6 include CSE 'O' and 'A' level. The Design Technology Department works closely with the Science Department in the development of joint courses, with a particular aim of encouraging girls' interest in this area.

ENGLISH

STEPNEY GREEN (SB)
Ben Jonson Road, E1 4SD
Tel: 01-790 6161
Roll: 1,000
Headmaster: J. Taylor
Required from January 1984, lively, hard-working English teacher to join a department of English teachers who are developing a postholder for equal opportunities who will work directly to the head of the department.

GEOGRAPHY

CHORFON (SM)
Manwood Road, E4 1SA
Tel: 01-900 1114
Roll: 1,170
Headmaster: J. J. Alderman
Required from January 1984 Head of Geography, Scale 2, to co-ordinate work of the department, currently operating on three sites.
Geography is taught to CSE 'O' and 'A' levels with lower school classes arranged to mixed ability groups.
Candidates should be fully conversant with GYSL and have an interest in contributing to both non-academic and 'A' level courses in the 16-19 age group.

HOME ECONOMICS

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

CAREERS

ABBEY WOOD (SM)
Barnwood Lane, SW17 8AQ
Tel: 01-546 6201
Roll: 1,100
Headmaster: Mrs S. Kay
Required from January 1984 experienced teacher with the commitment and energy to run the careers studio within a successful Art Department.
The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

MATHEMATICS

BONUS PASTOR RC (SM)
Winton Road, Bromley, Kent
Tel: 01-858 7642
Roll: 600
Required from January 1984 or soon after of a Mathematics teacher, Scale 2, to co-ordinate work of the department, currently operating on three sites.
Mathematics is taught to CSE 'O' and 'A' levels with lower school classes arranged to mixed ability groups.
Candidates should be fully conversant with GYSL and have an interest in contributing to both non-academic and 'A' level courses in the 16-19 age group.

KNOWSLEY

METROPOLITAN BOROUGH OF KNOWSLEY
Metropolitan Borough of Knowsley, Liverpool
Tel: 01-524 7642
Roll: 600
Required from January 1984 or soon after of a Mathematics teacher, Scale 2, to co-ordinate work of the department, currently operating on three sites.
Mathematics is taught to CSE 'O' and 'A' levels with lower school classes arranged to mixed ability groups.
Candidates should be fully conversant with GYSL and have an interest in contributing to both non-academic and 'A' level courses in the 16-19 age group.

Scale 1 Posts

COVENTRY
City of Coventry, Coventry
Tel: 01-222 8141
Roll: 1,060
Acting Headteacher: L. Goodhead
Required from January 1984 an enthusiastic teacher, Scale 2. A particular interest in Design and Technology is desirable. All students take Design and Technology in years 1-3 and examination courses in years 4, 5 and 6 include CSE 'O' and 'A' level. The Design Technology Department works closely with the Science Department in the development of joint courses, with a particular aim of encouraging girls' interest in this area.

Primary Schools

Inner London Education Authority

Qualified teachers are invited to apply for the following posts. Application forms and further details are available from the Head of the school unless indicated otherwise. Visits to schools by appointment are welcomed. Inner London Area Payment (£897 p.a.) is made in addition to the appropriate Burnham salary scale. Unless shown differently, the closing date for applications is 14 days from publication. All secondary schools in the IEA area are organised along comprehensive lines. IEA is an equal opportunities employer.

Post of Responsibility

KINGSDALE (SM)
Alley Park, SE1 8SO
Tel: 01-670 7575
Roll: 1,060
Headmaster: D. A. Crispin
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

MODERN LANGUAGES

GEORGE ORWELL (SM)
Turle Road, N4 3LS
Tel: 01-580 1100
Required from January 1984, Scale 2 Modern Languages teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 2 Posts and above

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Primary Schools

Headships

Applications are invited from suitably qualified and experienced teachers for the following headships:
SHRIMPTON (SM)
Dove Road, Giddeston, Rye, TN31 2PL
Roll: 101 plus 20 part-time and 13 full-time nursery pupils
Vacant until November 1983
SHRIMPTON (SM)
Dove Road, Giddeston, Rye, TN31 2PL
Roll: 125
Vacant until November 1983
SHRIMPTON (SM)
Dove Road, Giddeston, Rye, TN31 2PL
Roll: 125
Vacant until November 1983

Scale 1 Post

ERNEST BEVIN (SB)
Bechcroft Road, Tooting, SW17 7DF
Tel: 01-872 8282
Roll: 1,550
Headmaster: David Putter
Required from January 1984, temporary Scale 1 teacher (priority of permanent later) to work in well established and successful Special Education Department. Applicants with Special Education/Remedial training preferred.

MODERN LANGUAGES

GEORGE ORWELL (SM)
Turle Road, N4 3LS
Tel: 01-580 1100
Required from January 1984, Scale 2 Modern Languages teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 1 Post

ST EDMUND'S RC (SM)
St Dunstan's Road, Hamersmith W6 8RB
Tel: 01-748 1060 and 01-748 7448
Roll: 700
Headmaster: E. J. Dixon
Required from October 1983-July 1984, enthusiastic Home Economics Head of Department. The chosen candidate will join a team of four, teaching all ages and abilities up to and including 'A' Level. This is a temporary appointment in the first instance and subject to the approval of the Authority's Air Inspection.

Scale 2 Posts and above

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

Scale 1 Post

ESSEX
Moulsham High School, Chelmsford
Tel: 01-274 60101
Roll: 1,060
Headmaster: J. J. Alderman
Required from January 1984, Scale 2 Mathematics teacher to teach throughout the age and ability range. The successful candidate will be responsible for lower school curriculum development and assessment.

CRAFT, DESIGN AND TECHNOLOGY

Vacancies exist for qualified teachers of Craft, Design and Technology at the following Secondary Schools. Teachers of Technology, Technical Graphics, Design in Wood and Metal are encouraged to apply for further details and forms directly to the Headteacher of the schools listed below enclosing s.a.e.

Scale 1 Posts

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

SECONDARY COMMERCIAL SUB

LINCOLNSHIRE

ASSISTANT TEACHER
BRANSTON SCHOOL AND COMMUNITY COLLEGE
Comprehensive
Burnham Scale 1
N.O.R. 1300
Teacher required for January 1984 to offer Public Affairs at 'O' and 'A' level. Contribution to BSC General Typewriting and Office Practice will be expected.
For further details and application forms, please contact the Headmaster, Branston School, Burnham, Lincolnshire, on 01-524 7883, or write to the Director of Education, Lincolnshire County Council, 151822.

WAKEFIELD

CITY OF WAKEFIELD METROPOLITAN DISTRICT
CITY OF WAKEFIELD
Mixed Comprehensive (1880)
Required for January 1984 a teacher to teach in the subject of Design and Technology. The successful candidate will be responsible for the development of the subject in the school and will be expected to contribute to the work of the department.
For further details and application forms, please contact the Headmaster, City of Wakefield Metropolitan District, Wakefield, on 01-274 60101, or write to the Director of Education, Wakefield City Council, Wakefield, on 01-274 60101.

Scale 1 Posts

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

Scale 1 Post

ASTON MANOR SCHOOL, Phillips Street, B6 4PZ
(Tel: 021-359 8108)
SCALE 2
GREAT BARR SCHOOL, Aldridge Road, B44 8NW
(Tel: 021-360 3538)
SCALE 1
HANDSWORTH WOOD BOYS SCHOOL, Church Lane, B20 2HH
(Tel: 021-554 7883)
SCALE 1
HODGE HILL SCHOOL, Bromford Road, B36 8HB
(Tel: 021-783 8381)
SCALE 1
HOLYHEAD SCHOOL, Florence Road, B21 0HN
(Tel: 021-523 4207)
SCALE 1
JOSHUA MASON VILLAGE FARM SCHOOL, Hampton Road, B23 7JL
(Tel: 021-382 4757)
SCALE 1
KINGS NORTON BOYS SCHOOL, Northfield Road, B30 1DY
(Tel: 021-458 1306)
SCALE 1
LADYWOOD SCHOOL, Fresh Street, B16 0QT
(Tel: 021-455 0663)
SCALE 1
WARREN FARM CRAFT CENTRE, Warren Farm Road, B44 0PU
SCALE 1

###

Scale 1 and 2. **REWARD:** JANUARY 1984.
A qualified teacher to undertake
the teaching of the subject &
the full availability of
opportunities for an entire
classical teacher to contribute
to the following subjects
courses and assist in subject
innovations.
PROVIDED: NIDON ALLOWANCE
Application in form/further
particulars (e.g. the places
available from the places
Teacher to whom complete
form should be returned by
the 10th OCTOBER 1983 to
the **DIRECTOR OF EDUCATION**
Stratford, Stratford, London
E10 4BB. (022690) 13342

SPECIAL EDUCATION

NOTTINGHAMSHIRE COUNTY COUNCIL
EDUCATION DEPARTMENT
Applications are invited from suitably qualified teachers for the following posts:

ASH LEA S.E.N. (S)
Owlthorpe Road, Cotgrave, Nottingham NG12 3PA
Headmistress: Miss S. Wren

Roll: 43 (All age)
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.
Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

SHEFFIELD

EDUCATION DEPARTMENT
EDUCATION MOUNT P & M
10 AND 11 SCHOOL

(Tel: Sheffield 0742) 667151
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.

Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

EDUCATION DEPARTMENT
EDUCATION MOUNT P & M
10 AND 11 SCHOOL

(Tel: Sheffield 0742) 667151
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.

Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

EDUCATION DEPARTMENT
EDUCATION MOUNT P & M
10 AND 11 SCHOOL

(Tel: Sheffield 0742) 667151
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.

Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

EDUCATION DEPARTMENT
EDUCATION MOUNT P & M
10 AND 11 SCHOOL

(Tel: Sheffield 0742) 667151
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.

Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

EDUCATION DEPARTMENT
EDUCATION MOUNT P & M
10 AND 11 SCHOOL

(Tel: Sheffield 0742) 667151
Satisfactorily qualified and experienced teacher as Deputy Head of a Group 1 (S) school. The successful candidate will be responsible for the curriculum, development and implementation of the curriculum, reflecting an interest in both communication skills and computer-aided learning.

Please apply by letter, giving full curriculum vitae and the names of two referees, to the Head Teacher at the school as soon as possible.

Closing date: 14th October, 1983. (162659) 160072

DONCASTER

THE HESLEY GROUP OF SCHOOLS
Due to internal restructuring and development the following post has been created:

HEAD OF CARE
Salary Scale: N. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 1165, 1166, 1167, 1168, 1169, 1170, 1171, 1172, 1173, 1174, 1175, 1176, 1177, 1178, 1179, 1180, 1181, 1182, 1183, 1184, 1185, 1186, 1187, 1188, 1189, 1190, 1191, 1192, 1193, 1194, 1195, 1196, 1197, 1198, 1199, 1200, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 18

INDEPENDENT
EDUCATION
continued

Deputy Headships

Second Masters/
Mistresses

ESSEX
TRINITY SCHOOL
Saffron Walden, Essex
School established and
managed by the Society of
Friends.
(350 scholars, 60 in Sixth
Form)
DEPUTY HEAD
The Governors invite applica-
tions for the post of Deputy
Head from September 1984
following the retirement of
Margaret Brandon. The Head
will be responsible for the
school and the post is avail-
able from the Head's
Secretary.
Applications should be sub-
mitted by October 1983
(180012)

GOSFIELD SCHOOL

Nr Halstead, Essex CO9 1PF

APPOINTMENT OF HEAD

The post becomes vacant in September 1984, on the retirement of the present Headmaster. The school, founded in 1929, has 104 boarders and 25 day boys, aged 8-16 years, and is set in a country estate of about 75 acres.

Free accommodation is available in a three-bedroomed house in the grounds.

Salary and other benefits will take account of the responsibilities attaching to the post.

A degree in the Art subjects is preferable. Applications with the names of two referees should be sent to the Chairman of the Governors by 5th November.

GATEWAYS SCHOOL

Harewood, West Yorkshire

The Governors
invite applications for the

HEADSHIP

which will become vacant on 1st September, 1984, on the retirement of the present Headmistress, Mrs M. A. Beard.

Gateways, an Educational Trust, is an independent girls' day school of 355 pupils, covering the full age range of 4 to 18 years.

The salary is in accordance with the Burnham Scale, Group 6, Government Superannuation.

Further details are available from: The Bursar, Gateways School, Harewood, Leeds LS17 9LE. The closing date for applications will be Monday 31st October, 1983.

QUEEN ETHELBURGA'S SCHOOL

Harrogate, North Yorkshire

The Provost and Fellows of the Society of SS Mary and Aidan of Harrogate (Northern Division of the Woodard Schools) invite applications from well experienced graduates who are practising communicants of the Church of England, for the

HEADSHIP

The School is an independent boarding school purpose-built to accommodate 200 boarders and day girls up to the age of 18 on a commanding site at Harrogate in North Yorkshire.

Salary will be in accordance with the Burnham Scale (Group 6) plus an additional grant of 10% and a free house attached to the school will be provided.

Full details of the School and a form of application are available from the undersigned, to whom completed applications should be forwarded, together with a curriculum vitae and the names of three referees, before 28th October, 1983.

1 Priadine Terrace,
Tynemouth,
Tyne and Wear, NE30 4EZ.
Tel: 0632 578786

By Subject Classification

Arts and Design

Heads of Department

ILFORD

(LONDON BOROUGH
OF REDBRIDGE)

URSULINE HIGH
SCHOOL

Required January.
MENT for this three form
Head of Department. Girls
R.C. grammar school.

Salary according to qual-
ifications and experience.
References will be taken.
Application forms avail-
able from Headmistress 181218
(218921)

SURREY

REDFORD SCHOOL
Cobham, Surrey
Independent, R.C. M.C. 340
boys 11-18. In September,
1984 a qualified HEAD OF
DEPARTMENT will be re-
quired to take over the
school to Cambridge 'O' and
'A' level, and to be in-
active part in boarding school
life.
Salary above Burnham with
Area Weighting Allowance.
Single accommodation.
Please apply with
curriculum vitae and two
references to the Headmaster,
from whom further details
may be obtained. 181218

Other Assistants

DERBY

REPTON SCHOOL
Repton, Derby DE6 6FH
Independent, R.C. M.C. 300 boys
and 60 girls.
This will be a vacancy in
January 1984 for a young
graduate to teach Latin and
Archeology/Ancient History
at Level 1. Extra curricular
contributions essential, espe-
cially in the area of drama,
music and sport.
Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181224)

Classics

Heads of Department

WORCESTER

THE KING'S SCHOOL
Worcester
Head of Classics required for
1984. To teach from
11 to University Entrance.
Burnham Scale. Ability to
work with seniors and other
out-of-school activities an
advantage.
For further details, write
to the Headmaster's Secre-
tary, The King's School,
Winchester WR1 2LL, enclos-
ing a stamped, addressed en-
velope. (182351) 181618

Other Assistants

BRECON

CHRIST COLLEGE
Brecon, Powys (300 boys)
Required for January or
September 1984, a young
graduate to teach Latin and
Archeology/Ancient History
at Level 1. Extra curricular
contributions essential, espe-
cially in the area of drama,
music and sport.
Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(181624)

Short-Course in Rome.
See Education 181624

Commercial Subjects

Other Assistants

ST. GODRIC'S COLLEGE

Requires full-time
teachers of Secretarial sub-
jects. New ERO Shortland, Tyne-
writing and Office Practice,
and one teacher of English
as a Foreign Language who
experienced at Pro-
ficiency level.

Write or telephone:
Head of Training, St. Godric's
College, 6 Arkwright
Road, Hemphel, Loughborough
LE11 2JL. Tel: 181224

DEPUTY HEAD

SUMMERLEA SCHOOL

Rustington, West Sussex BN16 3PT

Summerlea School is a rapidly expanding day boarding School for girls of 5-18 years, and is situated near the coast.

The successful candidate should be a fully qualified teacher, able to assist with the main administration in the Senior School, including the external examinations and the construction of the Time-table as well as giving support to the Senior House Staff.

It is essential that the Deputy Head should be resident or be prepared to live near the school.

It is expected that the appointment will be made by January 1984 or as soon as possible.

Applications in writing giving curriculum vitae and details of experience to The Headmistress.

KING EDWARD'S SCHOOL AT BATH

HMC, ex-Direct Grant, Independent Day School
605 Boys

Required for September, 1984

DEPUTY HEAD

Salary: Burnham Scale
Group 10 (Deputy Head)

Details of the post from The Headmaster, King
Edward's School, North Road, Bath BA2 6HU
(Bath 64313)

Closing date for applications: 31st October (to
include CV, teaching subjects and names of 2
referees)

QUEEN ELIZABETH'S GRAMMAR SCHOOL

Blackburn

(Independent, HMC 1,230 boys)

APPOINTMENT OF DEPUTY HEAD

Group 11

Required for 1st August, 1984 qualified teacher as
Vice-Master (Mistress) of this large regional day-school,
with 300 boys and 100 girls in Sixth.

Substantial teaching commitment, knowledge of
Oxbridge entry procedures, timetabling experience,
sought for this academically-orientated school, which
has Assisted Places.

Salary not less than £14,000 pa plus 4-bedroomed
house, rent and rates-free, plus other fringe benefits.

Further details (including curriculum vitae) in your
hand with names and addresses of three referees
(one from outside teaching) to the Head Master,
Queen Elizabeth's Grammar School, Blackburn BB5
6DF, before 5th November.

SEX

DISCRIMINATION ACT, 1975

No job advertisement which indicates or can reasonably
be understood as indicating an intention to discriminate
on ground of sex (eg by inviting applications only from
males or only from females) may be accepted, unless:

1. The job is for the purpose of a private household or
2. It is a business employing fewer than six persons or
3. It is otherwise excepted from the requirements of the
Sex Discrimination Act.

A statement must be made at the time the
advertisement is placed saying which of the exceptions
in the Act is considered to apply.

In addition to employment, the principal areas covered
by the section of the Act which deals with
advertisements are education, the supply of goods and
services and the sale or letting of property.

It is the responsibility of advertisers to ensure that
advertisement content does not discriminate under the
terms of the Sex Discrimination Act.

INDEPENDENT
EDUCATION
continued

Computer Studies

Other Assistants

OXFORDSHIRE

ST ANTONY SCHOOL
Oxford
Qualified teacher (graduate) to
teach Computer Studies at
Level 1, part-time.
Apply with CV to Headmaster,
St Antony School, Fulham,
Oxford, OX4 2JY. 182024

Craft, Design &
Technology

Heads of Department

LONDON

COLLEGE SCHOOL
Barn Road, SE12 5AW
340 boys, 18
A vacancy occurs in January,
1984, for a Head of Design
Technology Department. As
Head of Department, the
candidate will be responsible
for the design and develop-
ment of the department and
for the teaching of the
subject. The candidate should
be a graduate with a degree
in Design Technology or a
related subject, and should
have experience of teaching
the subject at this level.
Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

BEDFORD

REDFORD SCHOOL
Bedford
Required for September 1984
a graduate to teach English
at Level 1. The successful
candidate will share
responsibility for the school
with the Headmaster and
will be responsible for the
teaching of the subject at
Level 1. The candidate should
be a graduate with a degree
in English or a related subject,
and should have experience
of teaching the subject at
this level. Further details are
available from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Other Assistants

SURREY

ST. GEORGE'S COLLEGE
Weybridge KT15 2QS
Independent school for
boys and girls.
Member of H.M.C. 545
pupils from 12 to 18
years.

Required for January
1984 a graduate to teach
English at Level 1. The suc-
cessful candidate will share
responsibility for the school
with the Headmaster and
will be responsible for the
teaching of the subject at
Level 1. The candidate should
be a graduate with a degree
in English or a related subject,
and should have experience
of teaching the subject at
this level. Further details are
available from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further details are avail-
able from the Headmaster.
Applications should be sub-
mitted by 15th October 1983
(182024)

Further

The Centre for British Teachers Limited

PRE-UNIVERSITY COURSES MALAYSIA

The Centre is recruiting 100 teachers of ENGLISH for English and study skills courses for Malaysian students who will be taking up places at Universities in English speaking countries. This new project is part of a national plan to improve the standard of English of these students and to offer social orientation to prepare them for their studies overseas. The students are aged 18+ and are highly motivated.

The Centre is well-established in Malaysia and the new teachers will be joining 88 Centre teachers completing contracts in Lower Secondary Schools. The first 40 teachers of the new project will go to Malaysia on 4 January 1984 to be followed by 25 teachers in April and a further 35 in August. Contracts will start with an

For further information and application form please contact:
The Centre for British Teachers Ltd (TMR)
Quality House, Quality Court
Chancery Lane, London WC2A 1HP
Tel: 01-242 2982

UNITED WORLD COLLEGE OF SOUTH EAST ASIA Singapore

DIRECTOR OF STUDIES

The college intends to appoint a Director of Studies who will take up duties no later than 1st April, 1984. The successful applicant will be one of a team of four senior members of staff and be chiefly responsible for the oversight and development of the curriculum.

The United World College of South East Asia offers a secondary education to 1,350 boys and girls, boarding and day students of all nationalities aged 11-19. Academic courses lead to GCE (UK) 'O' levels and the International Baccalaureate Diploma and Certificates. The college curriculum extends well beyond academic classes and is determined by the UWC philosophy of education and international Baccalaureate programmes. Candidates, of any nationality, would be expected to have a whole-hearted commitment to the ideals of the UWC movement and to have had considerable experience across the whole age and ability range of a large secondary school.

Letters of application, including a detailed account of qualifications and experience, together with the names of two referees, should be sent to the Headmaster, United World College of South East Asia, Pair Panjang, PO Box 15, Singapore, 8111, not later than Monday, 24th October, 1983. Details of the college, the post and conditions of service can be obtained from the UWC International Office, London House, Mecklenburgh Square, London WC1N 2AB, Tel: 01-437 6889. Interviews will be held in London, UK, and other centres as required in November 1983.

University of Petroleum and Minerals Dhahran - Saudi Arabia

Systems Engineering Department

Applications are invited from suitably qualified candidates for the following posts in the systems engineering department for the academic year 1984-85 starting 1st September, 1984.

Lecturers (Preparatory Year Programme)

Duties will include teaching a pre-engineering course to students in the University's preparatory year programme. Computer-aided learning is emphasised. Qualifications should include an MSc degree in science or engineering. Teaching experience is desirable.

Language of instruction is English.

Minimum regular contract for two years, renewable. Competitive salaries and allowances. Air-conditioned and furnished accommodation provided. Free air transportation to and from Dhahran each year. Attractive educational assistance grants for school age dependant children. All earned income without Saudi taxes, ten months duty each year with two months paid vacation.

Apply with complete resume on academic, professional and personal data, list of references, with copies of certificates, diplomas and degrees, including home and office addresses and telephone numbers, to: Dean of Faculty and Personnel Affairs, University of Petroleum and Minerals, PO Box 144, Dhahran, International Airport, Dhahran, Saudi Arabia.

OVERSEAS

(continued)

CYPRUS

TEACH IN CYPRUS
THE MIDDLE EAST AND THE MEDITERRANEAN
Many hundreds of teachers for all subjects and grades are required from primary to university level for this year. The first academic year. Good pay, no tax, warm climate and good employment conditions.

Two year contract, free housing and utilities. Interested candidates should apply in their own handwriting to The Human Resources Development Centre, PO Box 37, Cyprus, 1983/7. 460000

JERUSALEM

THE ANGLICAN SCHOOL, Jerusalem

An evangelical international school of 370 pupils from 5 to 17 years old needs teachers for the year 1984-85 in the following departments:

1. Primary (age 5 - 8)
2. Middle school (8 - 11)
3. A Head of the English Department
4. Science/Maths

Please write for further details to: The General Director, The Church of England, The Jerusalem School, Jerusalem, P.O. Box 100, Jerusalem, 10000. Tel: 02-237 5101. 460000

GREECE

EPFL Schools on GK Islands require GK organizers. Applicants should send CV to: EPFL, P.O. Box 100, Athens, 10174. 460000

ITALY

International School of Milan requires for January, 1984, a teacher of English (12-14 years) and a teacher of Mathematics (14-16 years). Computer studies to GCE level. For details and application form please write to Department of International Schools, 10, Levent Street, Paternoster, Santa Giulia 35W, 66282. 460000

ITALY

Professional Polish-Italian couple requires female as tutor/companion to improve exceptional English level of Massimo, 10-12 years, excellent knowledge of English and is capable of teaching. A.S. English, French, or excellent level English. Must love children and be healthy, affectionate, responsible, tidy and cheerful. Non-smoker. Swimmer preferred. Live in country. Private accommodation. One day a week. No housework. Excellent family. Minimum 1 year. Salary paid after 2 years. Start as soon as possible. Present tutor recommended.

Handwritten application, including telephone number, CV, photographs of candidates (level 10-12 years), recent photograph, two referees, should be sent to: Headmaster, United World College of South East Asia, Pair Panjang, PO Box 15, Singapore, 8111, not later than Monday, 24th October, 1983. Details of the college, the post and conditions of service can be obtained from the UWC International Office, London House, Mecklenburgh Square, London WC1N 2AB, Tel: 01-437 6889. Interviews will be held in London, UK, and other centres as required in November 1983.

KENYA

Teachers required January 1984. Private primary schools Nairobi and Mombasa. Two year contracts. Salaries attractive with accommodation. Applications to send full CV plus names of two referees to: Department of Adult Education, P.O. Box 100, Nairobi, Kenya. 460000

KENYA

IMANI SCHOOL, PO Box 750, Thika, Kenya

Vacancies exist for a teacher of French and General Subjects in the Senior and Intermediate Schools respectively. Applicants must be graduates with training committed teachers. Boarding and other extra curricular duties are expected.

Two year contract, free housing and utilities. Interested candidates should apply in their own handwriting to The Human Resources Development Centre, PO Box 37, Cyprus, 1983/7. 460000

SAN SALVADOR

EL SALVADOR, CENTROAMERICA

ACADEMIA BRITANICA GUATEMALA
The British School in El Salvador requires for January 1984:

1. Head of Infant Section, English
2. Assistant Teacher of English

Candidates for (1) must be graduates with teaching and substantial experience. The Infant section teaches 5-11 years. Candidates for (2) must be graduates with teaching experience. Full details of posts from: P.O. Box 100, London, W1P 8PX. 460000

OVERSEAS TEACHER EXCHANGE (EUROPE)

British teachers of Modern Languages currently employed in this country are invited to apply for a post-to-post exchange in Austria, Belgium, France, Italy, Spain and the USSR. Appointments are for one academic year (1984-85). A small number of exchanges are also available in Denmark. Candidates for (1) must be graduates with teaching experience. Full details of posts from: P.O. Box 100, London, W1P 8PX. 460000

THE FRANKFURT INTERNATIONAL SCHOOL REQUIRES

TEACHERS OF ENGLISH TO begin January 1st 1984. The Frankfurt International School, Germany, is a co-educational day school for 12-14 years (ages 5 to 13) students of all nationalities serving the international community of Frankfurt/Main. The curriculum is American oriented. Full contracts with salary for 2 years with possibility of extension. Salaries are attractive. Applicants should write to: The Frankfurt International School, P.O. Box 100, Frankfurt/Main, Germany. (16485) 460000

T.S.F.L. LECTURERS

LIBYA

Libyan university requires two year contracts. Excellent salary. Qualifications required. Minimum 6 years experience. Full details of posts from: P.O. Box 100, London, W1P 8PX. 460000

ZIMBABWE

FALCON COLLEGE

Independent HMC boarding school 480 boys. A Graduate level is required for January 1984.

Salary range ZD 7000 to ZD 1400 plus accommodation allowance etc. Initial three year contract with bonus.

Please contact Mr F. J. Smith, Clifton House, 67 & 7, Smith Street, Piccadilly, London W1C 8AB. 460000

Administration

Local Education

Authority

LEICESTERSHIRE

DEPUTY DIRECTOR OF

SALARY: £13,701 plus

£440 (3) £20,947 (Award Pending)

Applications are invited for this post. The successful candidate will be responsible for the development and co-ordination of the County Education Service. The post holder will be a member of the County Education Committee and will be responsible for the day-to-day running of the County Education Service.

Candidates must be graduates with substantial experience in education. The successful candidate will be a member of the County Education Committee and will be responsible for the day-to-day running of the County Education Service.

Salary is related to JNC Officers Scale.

For further particulars please apply to: Mr F. J. Smith, Clifton House, 67 & 7, Smith Street, Piccadilly, London W1C 8AB. 460000

Apply (no formal) giving full details of your experience and qualifications to: The Director of Education, Leicestershire County Council, PO Box 100, Leicester, LE1 1JH. 460000

COUNTY EDUCATION OFFICER

Mr. W. H. Petty, CBE, MA, B.Sc., has announced his intention to retire from the post of County Education Officer at the end of February next year.

The County Council now invite applications for the post of County Education Officer from persons of wide experience in the field of education administration, and who have clearly demonstrated their abilities at a senior level.

Kent is one of the largest education authorities, serving a population of 1.5 million. It provides 236,000 school places, its further education system caters for over 80,000 students, and there are 68,000 adult education enrolments. The gross revenue budget for the Education Service for the current year is £341 million, including the Library and Museums service for which the County Education Officer is also responsible. The Service has a reputation for progressive innovations.

The salary range is £26,888 x 543 (3) - £28,497, and is currently under review.

Further details and an application form are available from the County Personnel Office, County Hall, Maidstone, Kent ME14 1XQ (tel. (0622) 871411, ext. 3518), and should be returned by 28 October.

KENT COUNTY COUNCIL

EDUCATION COMMITTEE

ADVISER FOR SPECIAL EDUCATIONAL NEEDS

Salary scale: Southbury HT Group 9 £15,027-£18,261 pa

Applications are invited for this newly established post which will involve advisory responsibility across the area of special educational needs, including special education. Applicants should be well qualified in one or more areas of special education and have substantial and successful teaching experience in special schools and in primary or secondary schools.

ADVISER FOR SECONDARY EDUCATION

Salary Southbury scales (Burnham HT Group 8) £13,863-£16,189 pa

Applicants should have substantial experience in secondary education including an understanding of current curriculum development and the ability to meet the in-service training needs of teachers.

Application forms and further particulars for both posts available from the Director of Education, Civic Centre, Newcastle upon Tyne, NE1 8PU. Closing date 21st October, 1983.

City of Newcastle upon Tyne

This is an Equal Opportunities Advertisement

LONDON BOROUGH OF CROYDON

Applications are invited from good honours graduates for APPOINTMENT AS GENERAL INSPECTORS

1. With responsibility for Schools/Industrial Liaison and Careers Education
The candidate appointed to this important new post will establish close liaison with Industry and Commerce and develop vocationally orientated courses. Qualification status is essential, but candidates are invited from a variety of backgrounds and experience.
2. With Responsibility for European Languages
The candidate appointed will play a major part in the development of the teaching of European Languages. Salary: Southbury - HEAD TEACHER 10 - £16,000-£17,200 plus London Allowance of £845. A car allowance is payable.

Application forms are obtainable from the Director of Education (TAS), Education Department, Tabernacle House, Park Lane, Croydon, CR9 1TP, to whom they should be returned by Friday 21st October 1983.

LONDON BOROUGH OF BARNET EDUCATION DEPARTMENT

GENERAL ADVISER

For Physical Education
Salary: £15,672 to £16,926 (Southbury Scale, Group 9 Headship)

To join a team of thirteen Advisers all with specialist and general responsibilities. Varied and wide teaching experience in primary and secondary schools preferable, and a keen interest in all aspects of the teaching of physical education is necessary.

Application forms and further particulars from Director of Educational Services, Town Hall, Friern Barnet, London N11 3DL. Tel: 01-368 1255, Ext. 225. Ref: ADM/E73.

Closing date for applications Tuesday, 18th October, 1983.

We welcome applications from registered disabled people.

Metropolitan Borough of Rochdale Education Department

EDUCATION DEPARTMENT ASSISTANT EDUCATION OFFICER

(Special Education)
P01 (5-9) £11,052-£12,408

Applications are invited from graduates with teaching experience in both ordinary and special schools for the above post. Experience in educational administration is desirable but not essential.

An essential user car allowance is payable, therefore, applicants must possess a full current driving licence. Assistance with removal expenses etc and housing accommodation may be available.

Application forms available (quote Q 250) from the Chief Personnel Officer, PO Box 68, Municipal Office, Smith Street, Rochdale OL16 1XG (Tel: 47474, Ext. 652) to be received not later than 21st October, 1983.

EDUCATION DEPARTMENT

CAREERS OFFICERS

Scale 3/5 Salary £6,237-£8,493 pa inc (bar points at £5,732-£7,602 pa)

Applications are invited from suitably qualified and experienced people for the posts of Careers Officers. Officers of the Newham Service are expected to be equally adept in advising employers, counselling and advising young people in schools, colleges and the workplace, and helping the young unemployed.

Preference will be given to applications from officers who have successfully completed Parts 1 and 2 of the Diploma in Careers Guidance.

Further details and application forms from Director of Education, Education Department, 27 High Street, Stratford, London E15. (Tel: 01-534 4545, Ext. 5765).

Closing date: 21st October, 1983.

LONDON BOROUGH OF NEWHAM

SOUTH-WESTERN EXAMINATIONS BOARD

for the Certificate of Secondary Education

23-29 Marsh Street, Bristol BS1 4BP

Tel: Bristol 23434

COMPUTER MANAGER

Applications are invited for the post of Computer Manager for the above Board. The Computer Manager is responsible for supervising the operation of the computer procedures associated with the Board's work and is a member of the senior planning and development team in the Board.

The Board administers the Certificate of Secondary Education examinations through the counties of Avon, Cornwall, Devon, Gloucestershire, Somerset and Wiltshire, and is one of the five boards which form the Southern Examining Group.

The salary scale is £12,408-£13,725 per annum and commencing salary will be dependent on qualifications and experience. It is hoped the successful applicant will take up duties on 1st January, 1984.

Further details and application form can be obtained by sending a stamped addressed envelope, endorsed 'Computer Manager' to the above address. Completed application forms should be returned to the above address by 21st October, 1983.

Administration General

NORTH YORKSHIRE

FRIENDS' SCHOOL

Great Ayton

(Co-educational day and boarding school under the management of the Friends' Meeting of the Society of Friends)

Required from 1st April 1984, with the retirement of the present Bursar, Miss Margaret Cumberston.

Details and particulars of the post are available from the Headmaster, Friends' School, Great Ayton, Easingwold, North Yorkshire YO21 2BN. (05153)

RICHMOND

ASSOCIATE DEPUTY FOR

EXTERNAL AFFAIRS

RICHMOND COLLEGE

The American International College of London

An expanding international liberal arts university college with over 200 students is seeking a candidate for the position of Associate Deputy for External Affairs. Areas of responsibility include liaison with students, public relations, and alumni/parent relations. Position available immediately.

Applicants should have previous experience in Recruitment, Public Relations and possess good communications skills. Administrative experience, including knowledge of computerized records, would be helpful. International and multicultural experience highly desirable. Knowledge of American style university education is essential. Applicants must be prepared to travel.

Salary range for the post is £10,000 to £12,000 depending on experience. Full details and application form available from: Mr. G. Mitchell, Deputy to the President, American International College, 100, Strand, London WC2R 0AL. (Tel: 47474, Ext. 652) to be received not later than 21st October, 1983.

COUNCIL FOR

EDUCATION IN THE WORLD

CITIZENSHIP

Requires DEPUTY CONFERENCE ORGANISER.

Salary: £7,578 minimum. To start January 1984. The post involves organisation of school conferences, preparation of background material, typing and submitting reports, and essential teaching experience an advantage.

Details and form from CEWC, PO Box 100, November 1983. (54061, 500000)

CHIEF ADMINISTRATIVE OFFICER

Applications are invited for the new post of Chief Administrative Officer for the CENTRAL BUREAU FOR OCCUPATIONAL VISITS AND EXCHANGES. The post is based in London, Edinburgh, Glasgow, Belfast and is funded by the Department of Education and Science, the Scottish Education Department and the Department of Education for Northern Ireland.

The grading of the post is equivalent to Principal in the Civil Service and the CAO will work alongside two Deputy Directors responsible for the administrative work of the CBVE. The successful candidate will be responsible for the financial management of the CBVE, for the implementation of Board policies and for the introduction and utilisation of new office technology.

Managerial experience and formal qualifications in one or more of these areas will be valuable. Salary: £14,331 with annual increments to £16,000. The post includes London weighting and concessionary travel allowances. Applications should be made in writing to the Director, CBVE, Seymour House, Westminster, London SW1P 3JL. (Tel: 554 5545) 500000

STAFFORD

ASSOCIATION

FOR REMEDIAL

EDUCATION

Required for the central office the post would be an ex-teacher with sympathy for children with special educational needs.

For information from the N.A.R.E. Central Office, 10, St. Albans, St. Albans, Herts. AL1 1JH. (55414) 500000

YOUTH HOSTELS ASSOCIATION

Two Education Liaison Officers

One full time based in South and West Yorkshire and one 30 hours per week in London and South East England, to develop and maintain relations with schools, colleges and universities in order to encourage greater use of youth hostels by educational youth and VTS groups.

Requirements are appropriate teaching and youth work experience, ability to use audio visual aids and public speaking. Should be car owner.

Salary on incremental scale £6,500 - £7,250 plus wages, appropriate allowances.

Further details and application form from Roger Barker, Assistant National Secretary Youth Hostels Association, 10, St. Albans, Herts. AL1 1JH. (55414) 500000

HAMPSHIRE

THE WESTGATE SCHOOL

Chertson Road, Winchester

11-13 Corns, Milsom, O.R. 100

For a Housemaster (R.C.C.O.) required January 1984. Applications by letter to the Headmaster with full c.v., names and addresses of referees, and references, to: 19th October. (52167) 540000

Child Care

EAST SUSSEX

GRIMES SCHOOL

Fife Road, Seaford

(Invitation to children's Aid)

Required for seaside boarding school for 60 children, to assist with out-of-school hours, including their physical well-being and the fostering of recreational activities. Good holiday experience essential. Ability to swim an advantage. Salary NICE scale according to experience when requesting application form from Headmaster.

Applications should be returned within ten days of the appearance of this advertisement. (55414) 540000

Subbuteo Association and Promotions Manager

Circa £9,500 + Car

Subbuteo, a major branded product within the Waddington Games Company, is seeking a suitable person to manage its expanding Association and Promotions Section.

Reporting to the Marketing Director you will be responsible for the organisation and running of leagues, championships and tournaments throughout the UK and overseas. Your role will also include the development of a range of promotional activities of both an in-store and general nature.

Ideally you will be aged between 28 and 35 and have been involved with soccer. However, if you have a major interest in football, indeed in sport in general, a talent for organisation and a proven ability to work with children, then you may be the person we want.

Based in Leeds, the remuneration package also includes a pension and life assurance scheme plus relocation expenses where necessary.

Please write giving brief details of your career to date to:

David Longley

Group Personnel Department

John Waddington PLC

40 Wakefield Road, Leeds LS10 3TP

THE SPASTICS SOCIETY

Please telephone 01-336 5020, extension 294 for an application form and for further details

Education Psychologists

NORTHAMPTONSHIRE

EDUCATION DEPARTMENT PSYCHOLOGIST

Kettering Area
(Salary Scale Q74
£10,487 - £14,253 p.a.)
Applications are invited from suitably qualified persons for the above post, which will take effect from 1st January 1984.

Applicants should have an honours degree in Psychology (or its equivalent) and an experience of working as an educational psychologist. Successful candidates will be required to complete a postgraduate qualification in Educational Psychology or equivalent by January 1984.

The post holder will be expected to have full driving licence and an essential part of the job will be paid for the use of a private car for official business.

Further details and application forms, returnable to the County Education Officer, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Examiners

MANCHESTER

UNIVERSITIES OF MANCHESTER, LIVERPOOL, LEEDS, SHEFFIELD AND SHEFFIELD HALLAM JOINT MATRICULATION BOARD

Teachers with appropriate professional qualifications and three or more years' experience are invited to apply for appointment as Examiners in English, Mathematics, Science, History, Religious Studies, Latin, Greek, Music, Art, Physical Education, Computer Studies, Economics, Geography, and Modern Languages.

For further information apply in writing to the Secretary, Examiners, The Universities of Manchester, Liverpool, Leeds, Sheffield and Sheffield Hallam, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

SOUTH WESTERN EXAMINATIONS BOARD

Applications are invited for the post of Chief Examiner in English Language, Mathematics, Science, History, Religious Studies, Latin, Greek, Music, Art, Physical Education, Computer Studies, Economics, Geography, and Modern Languages.

Further details and application forms may be obtained by sending a stamped addressed envelope to the Secretary, Examiners, The South Western Examinations Board, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430,